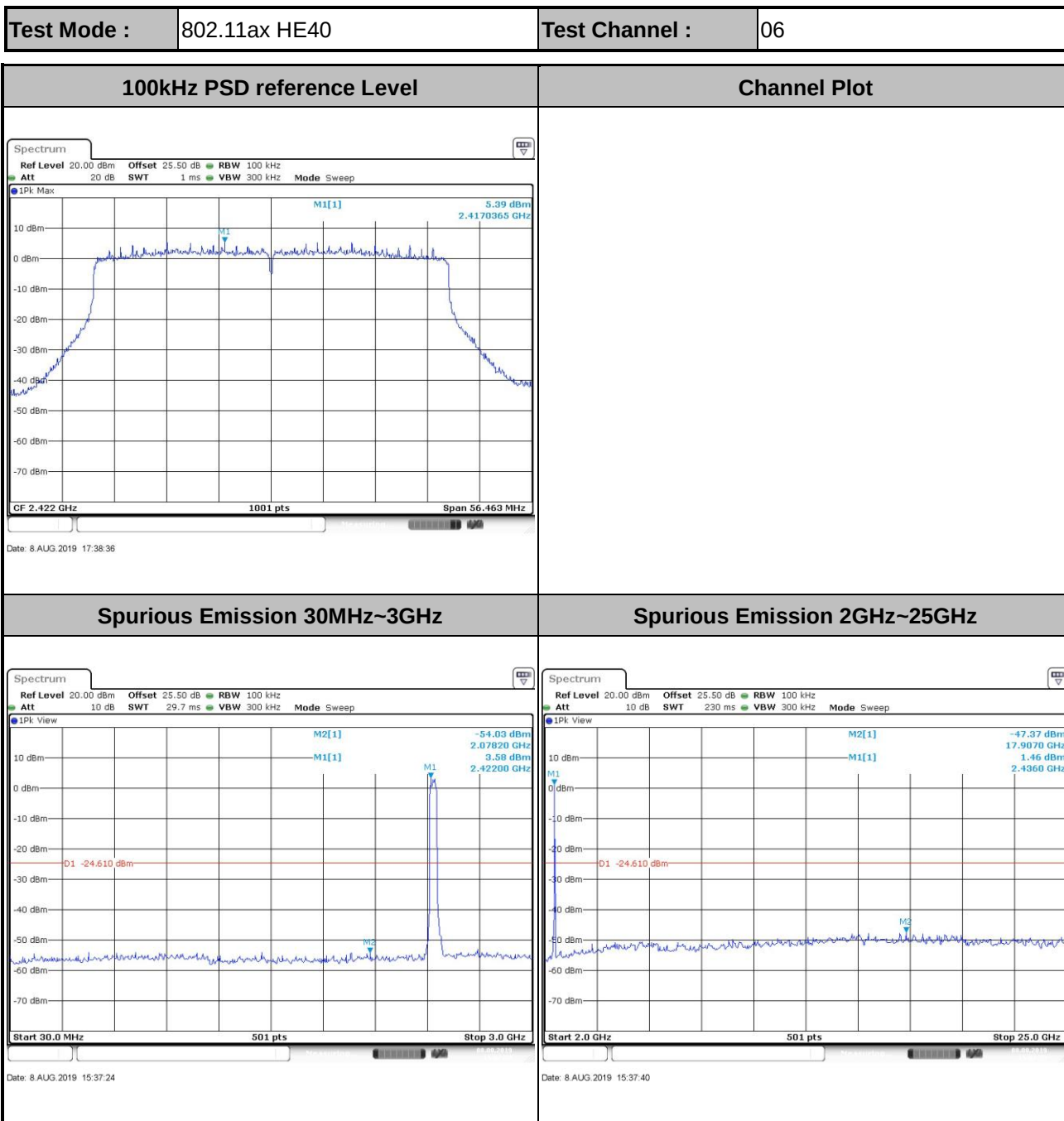


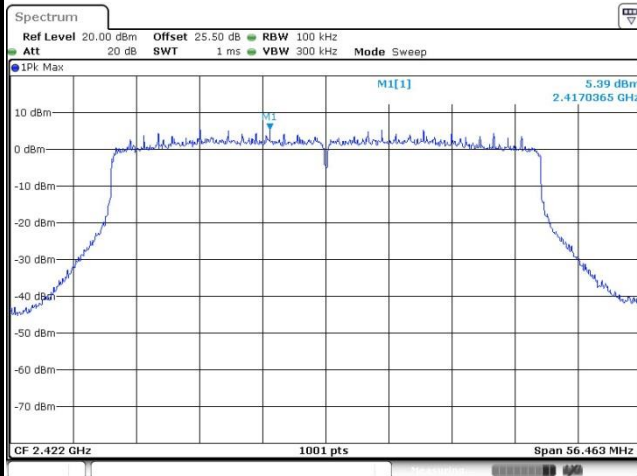




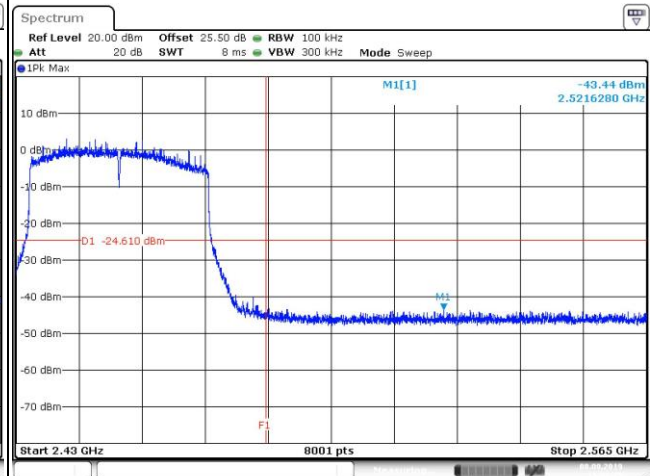
Test Mode : 802.11ax HE40

Test Channel : 09

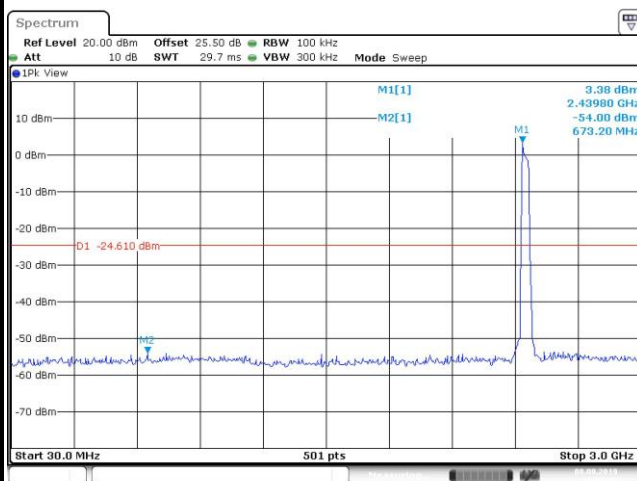
100kHz PSD reference Level



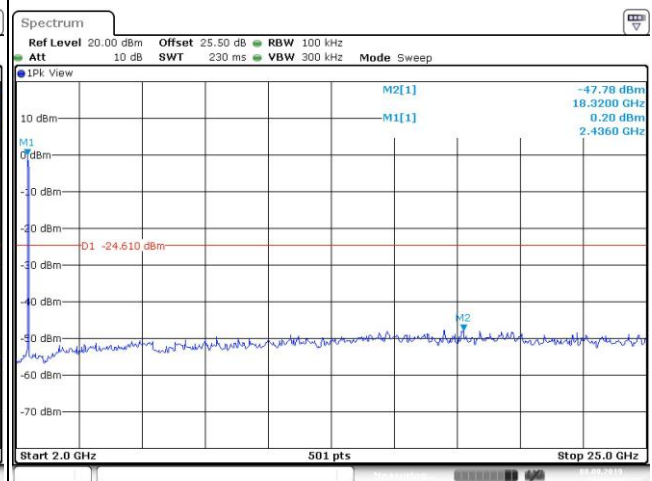
Channel Plot



Spurious Emission 30MHz~3GHz



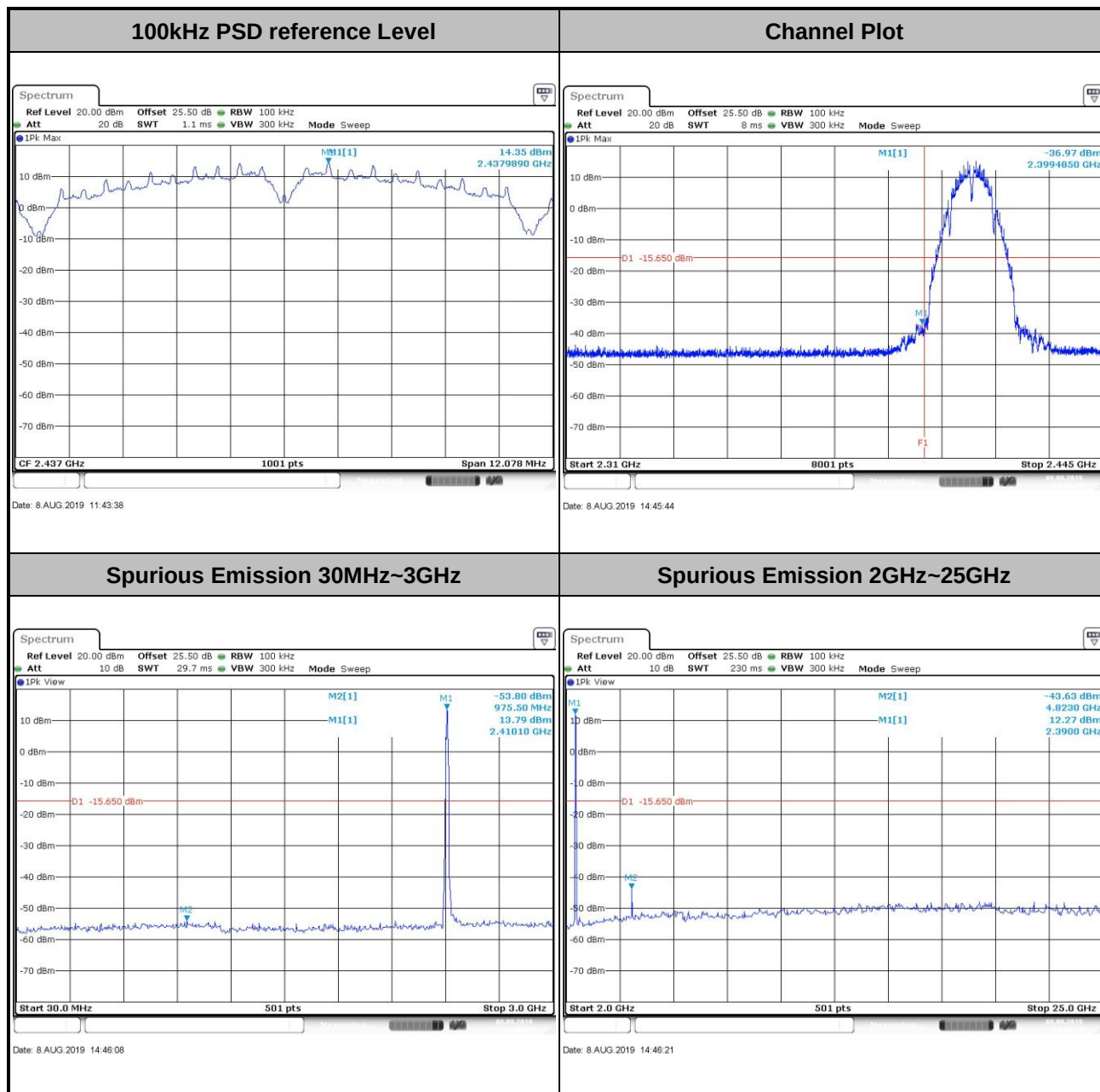
Spurious Emission 2GHz~25GHz





Number of TX = 4, Ant. 3 (Measured)

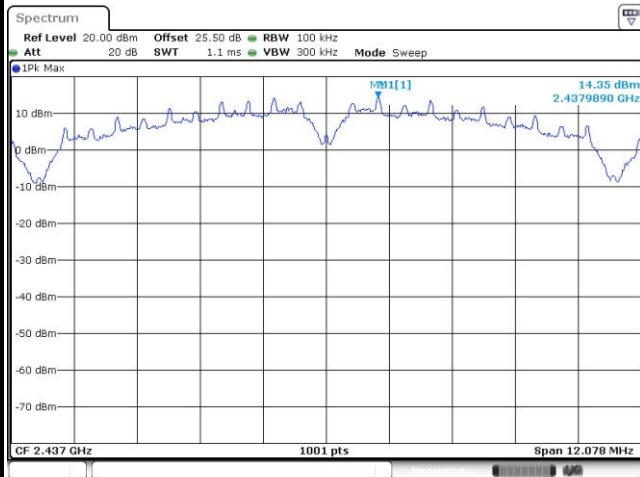
Test Mode :	802.11b	Test Channel :	01
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Test Mode :	802.11b	Test Channel :	06
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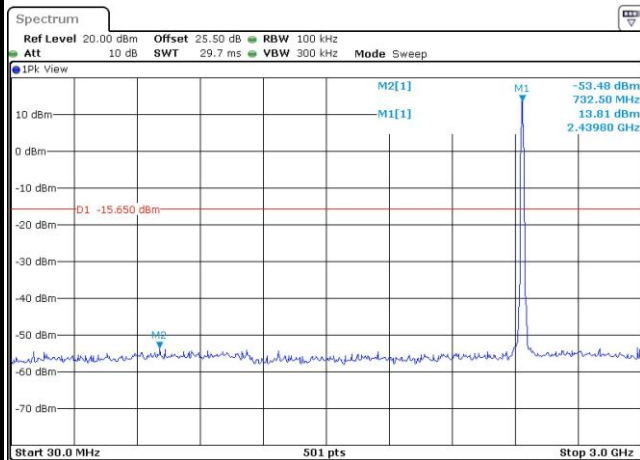
100kHz PSD reference Level



Date: 8 AUG 2019 11:43:38

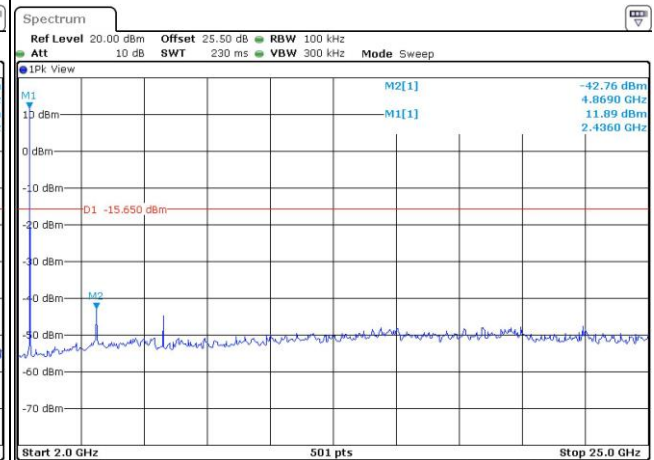
Channel Plot

Spurious Emission 30MHz~3GHz



Date: 8 AUG 2019 14:47:07

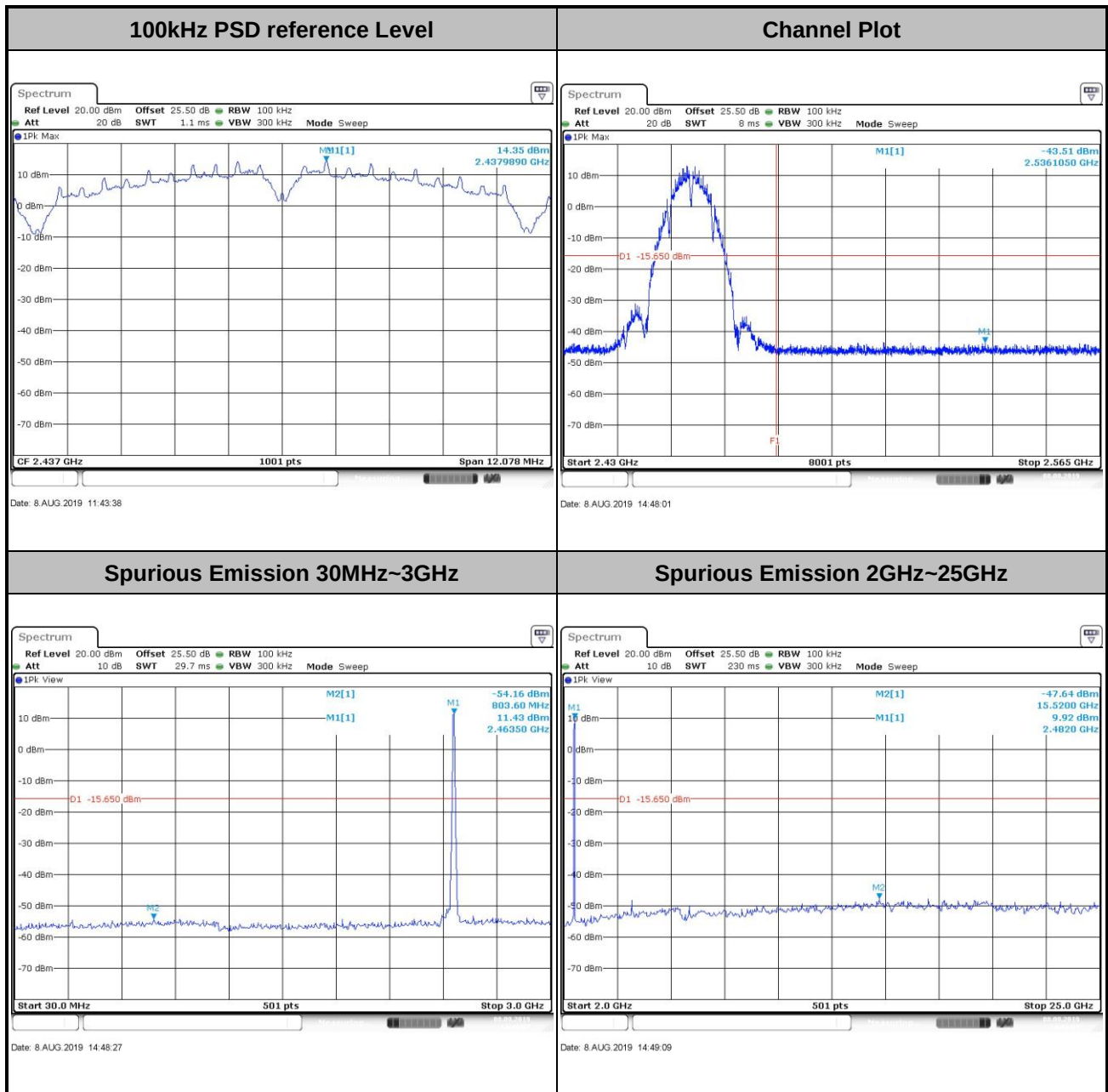
Spurious Emission 2GHz~25GHz



Date: 8 AUG 2019 14:47:19



Test Mode :	802.11b	Test Channel :	11
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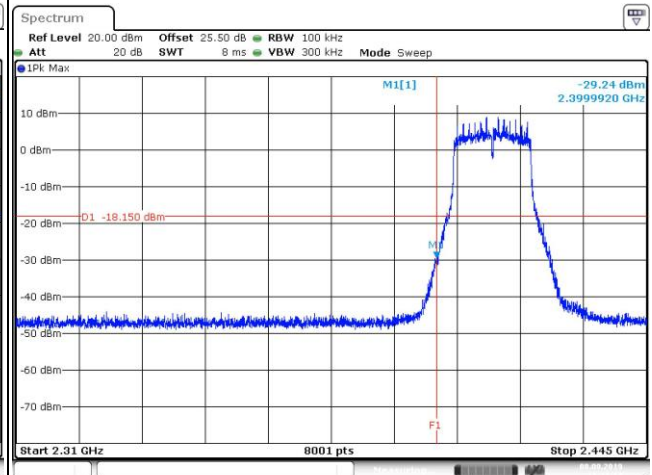


Test Mode :	802.11g	Test Channel :	01
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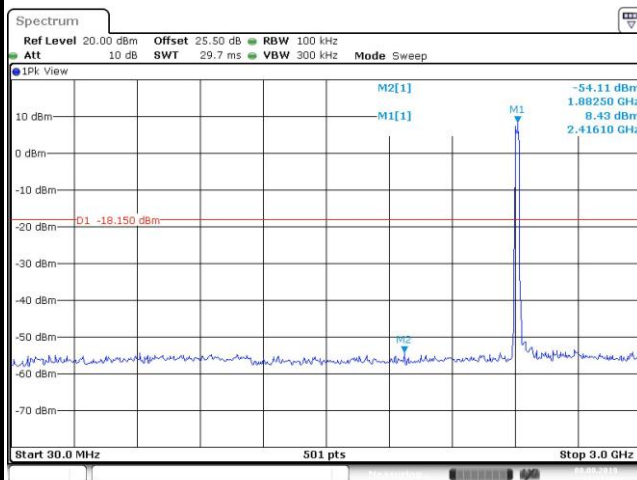
100kHz PSD reference Level



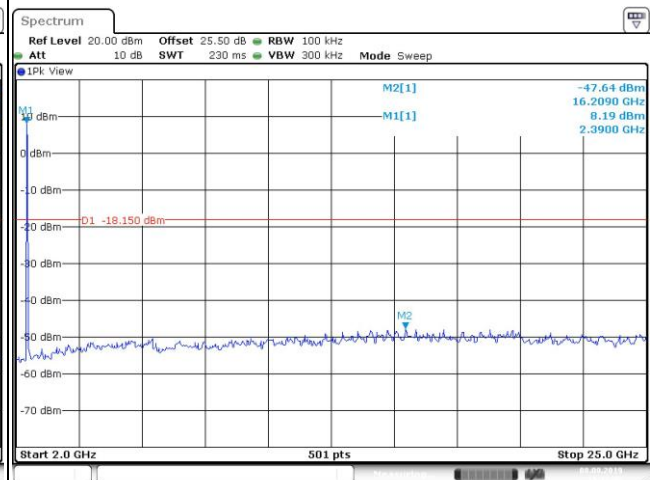
Channel Plot

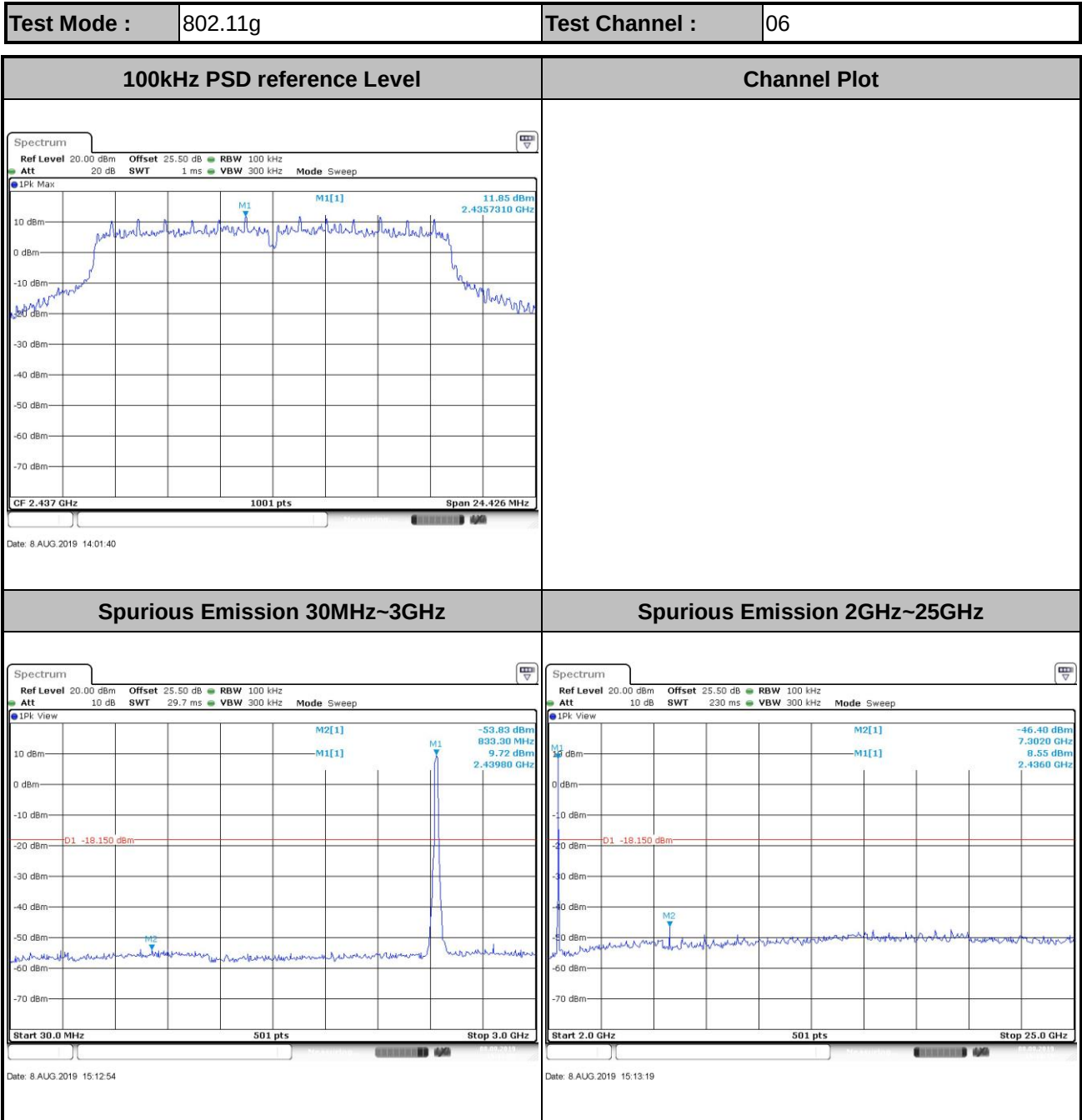


Spurious Emission 30MHz~3GHz



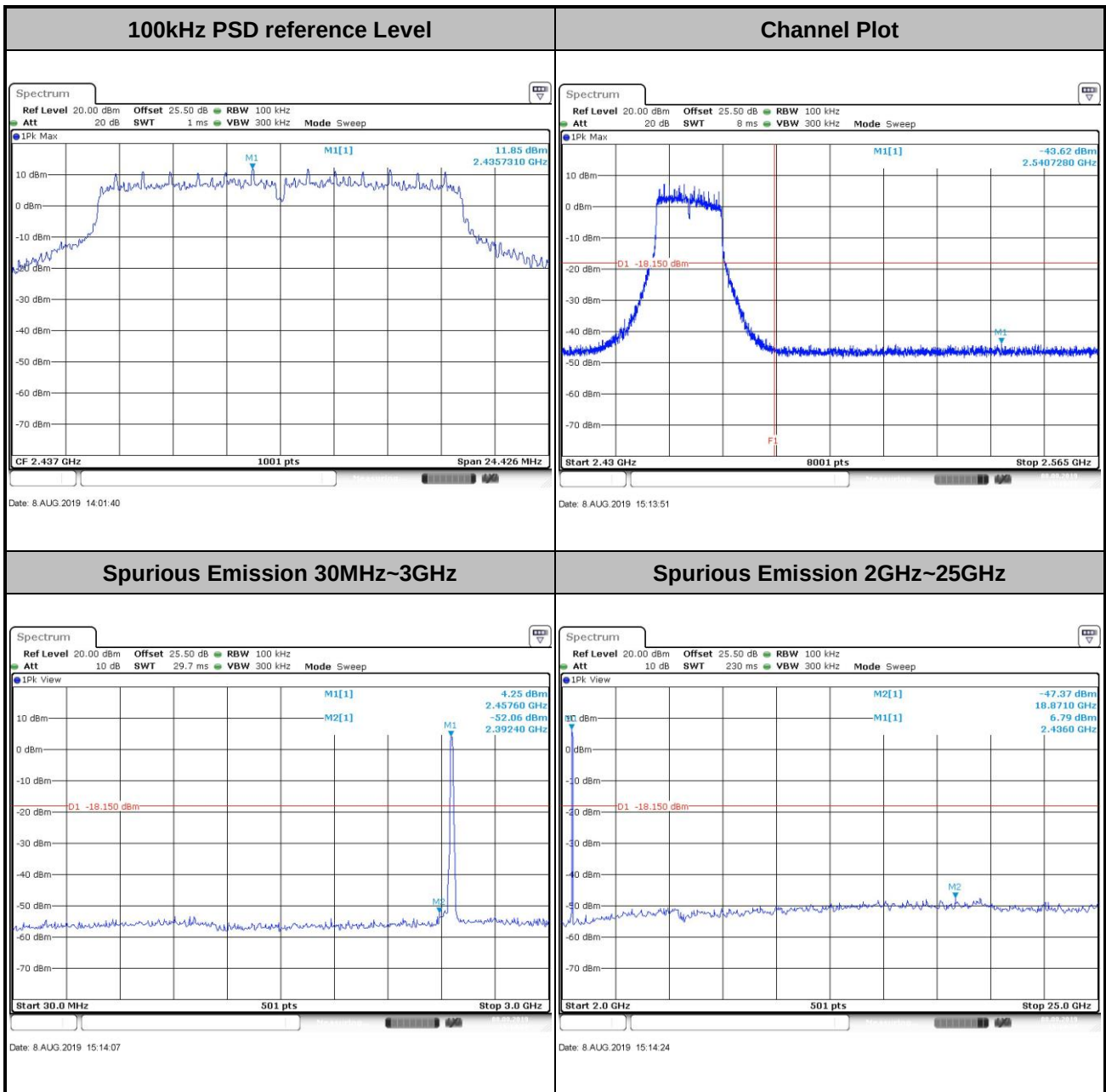
Spurious Emission 2GHz~25GHz

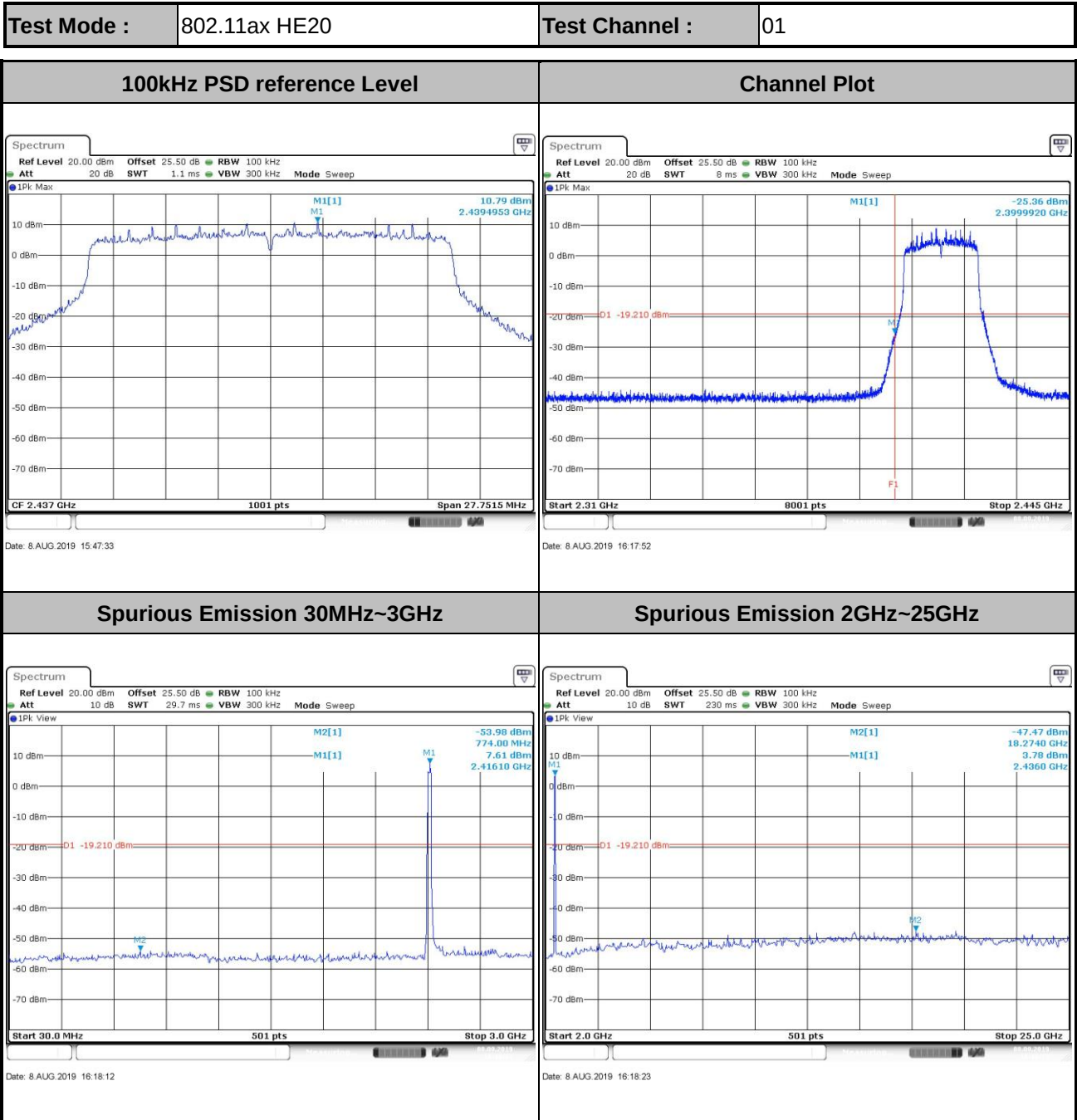


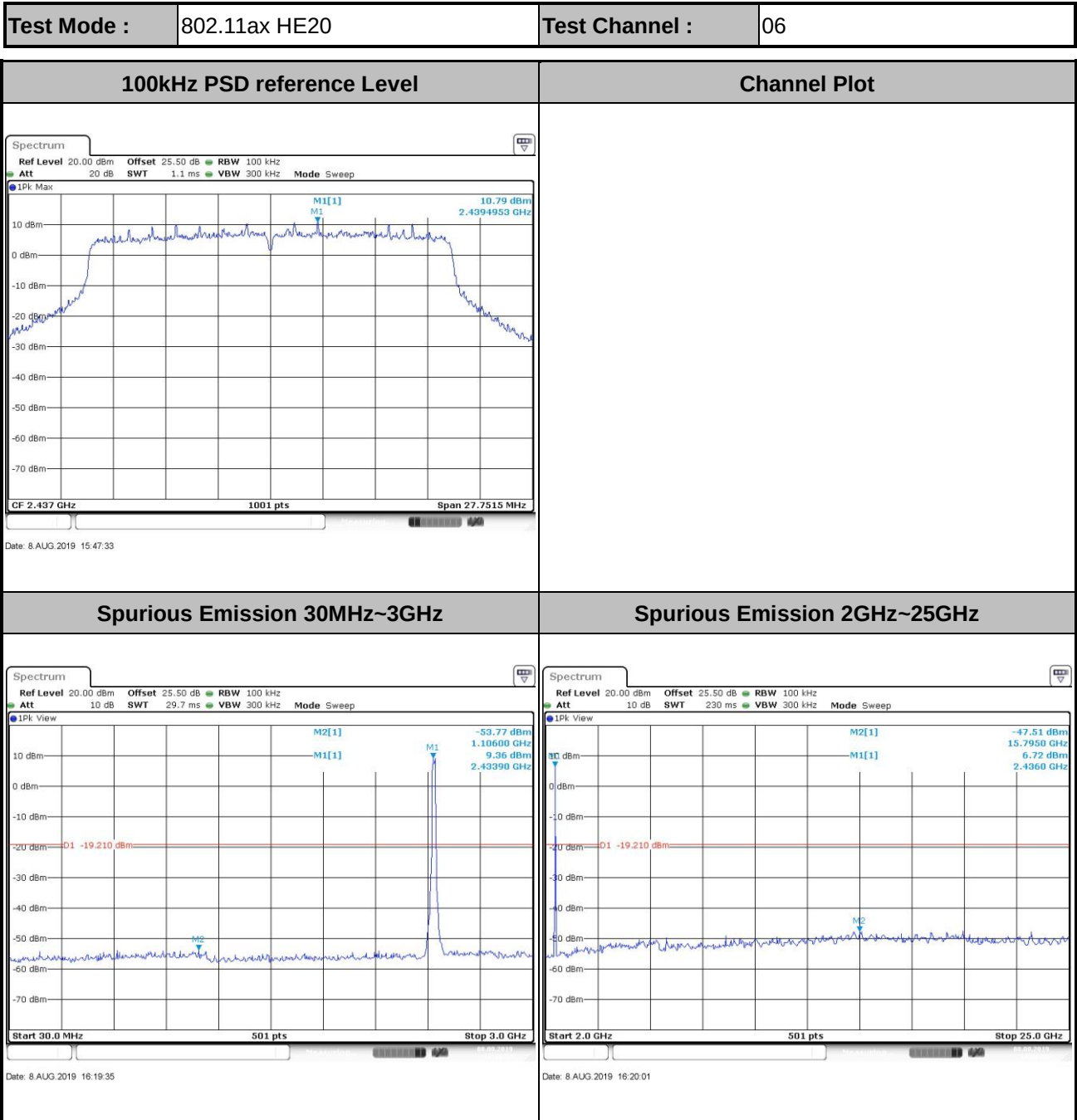


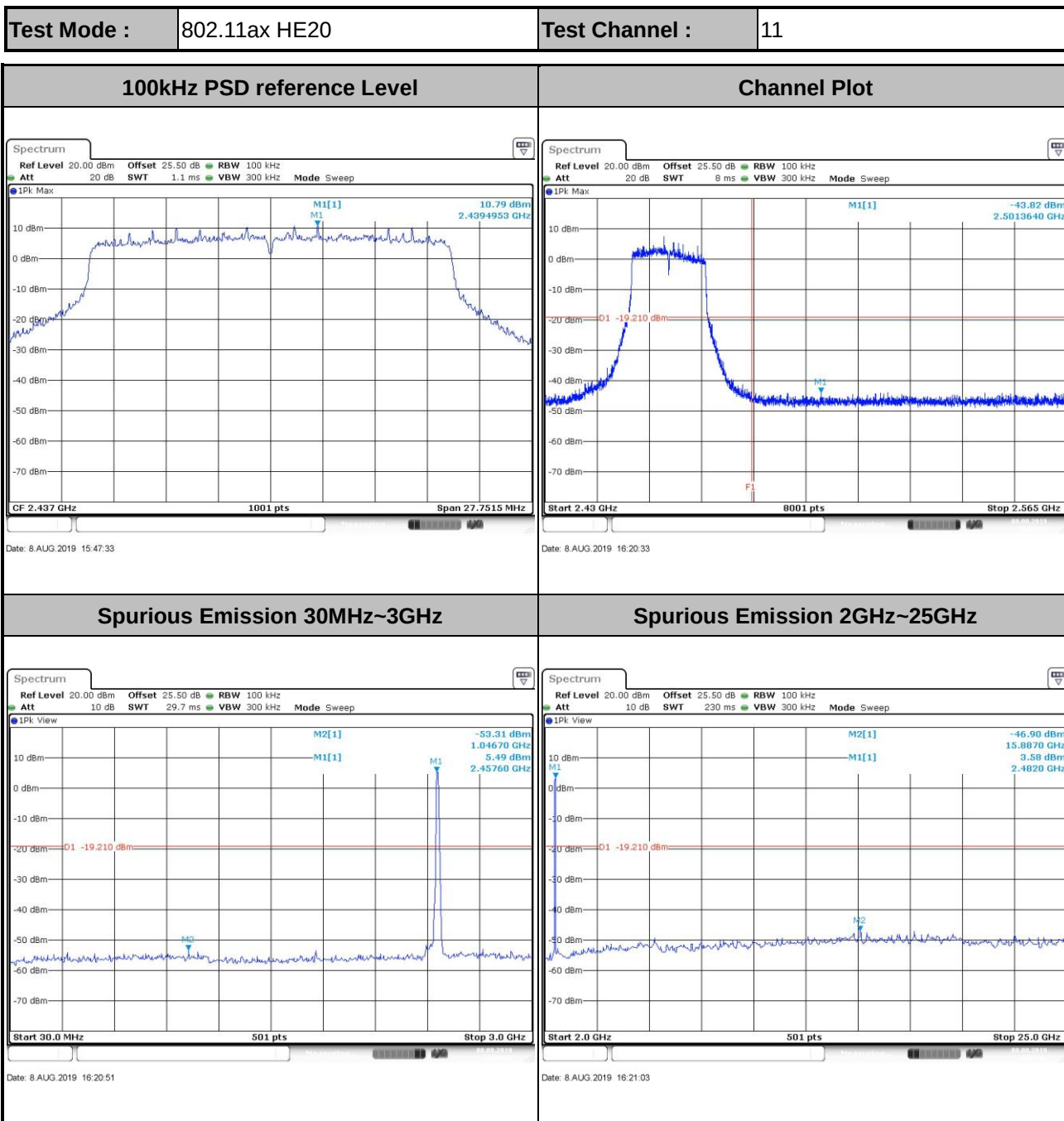


Test Mode :	802.11g	Test Channel :	11
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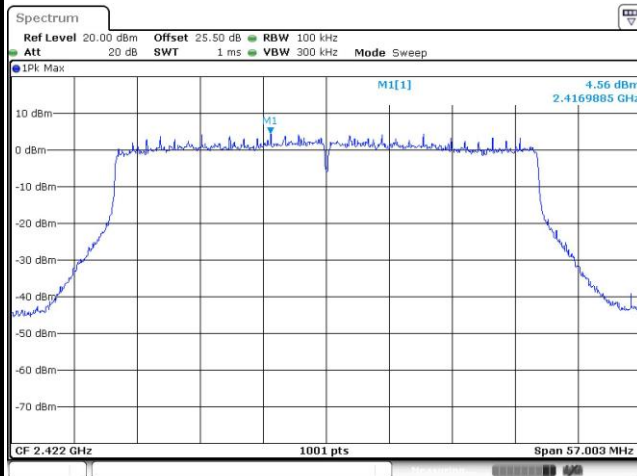




Test Mode : 802.11ax HE40

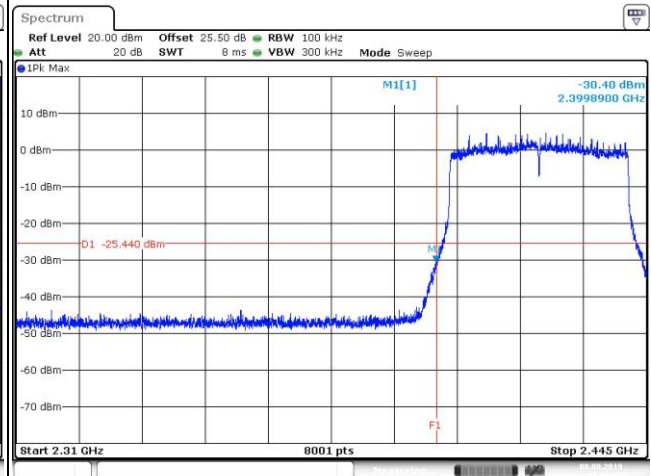
Test Channel : 03

100kHz PSD reference Level



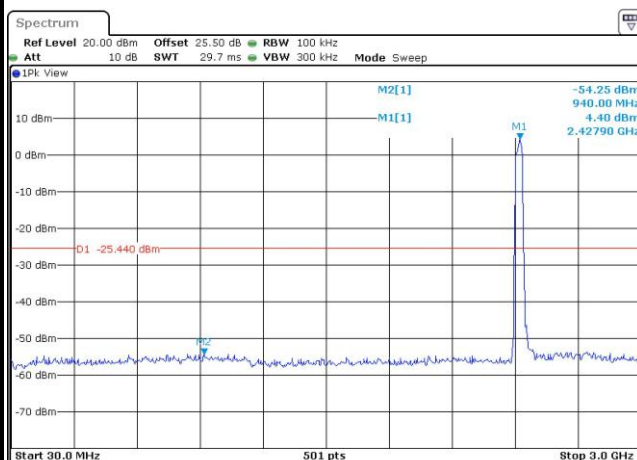
Date: 8.AUG.2019 19:23:16

Channel Plot



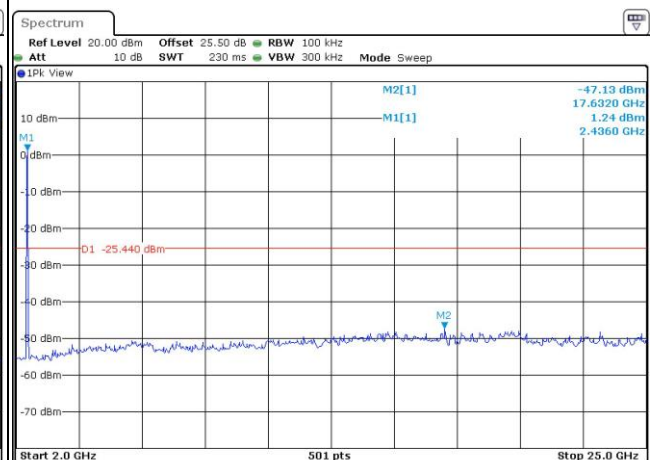
Date: 8.AUG.2019 15:41:20

Spurious Emission 30MHz~3GHz



Date: 8.AUG.2019 15:41:49

Spurious Emission 2GHz~25GHz

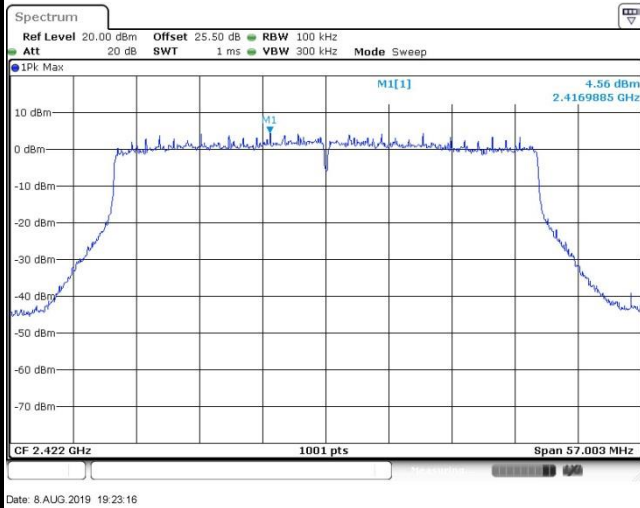


Date: 8.AUG.2019 15:42:01



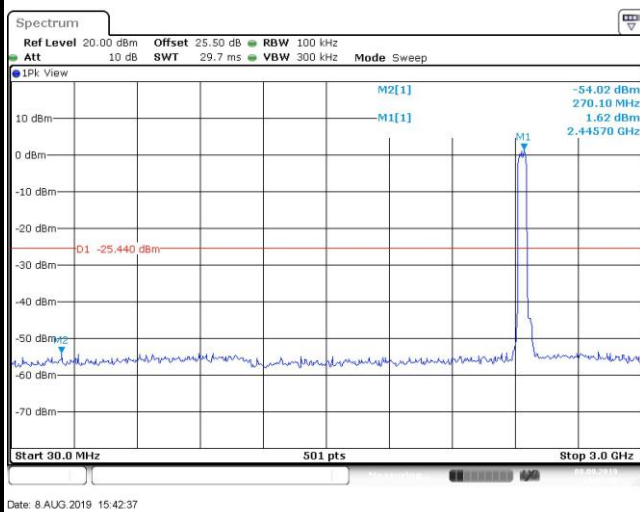
Test Mode :	802.11ax HE40	Test Channel :	06
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100kHz PSD reference Level

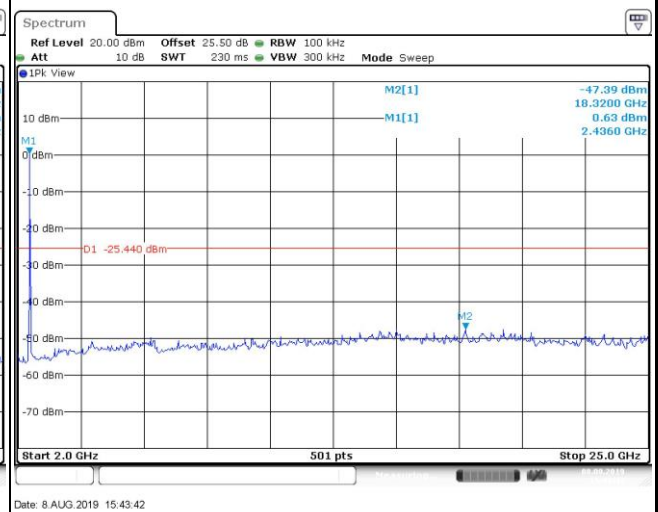


Channel Plot

Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz

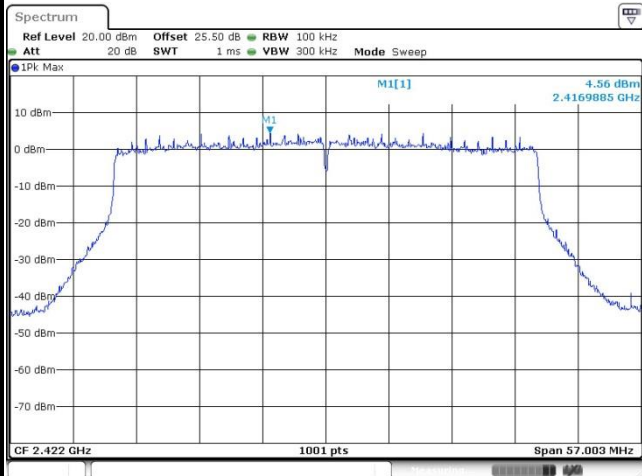




Test Mode : 802.11ax HE40

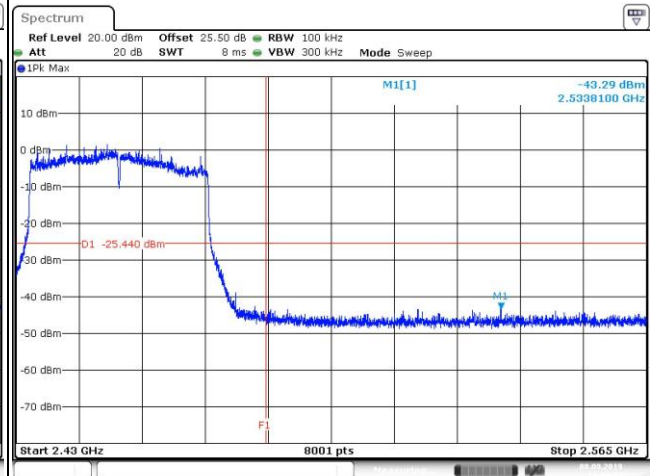
Test Channel : 09

100kHz PSD reference Level



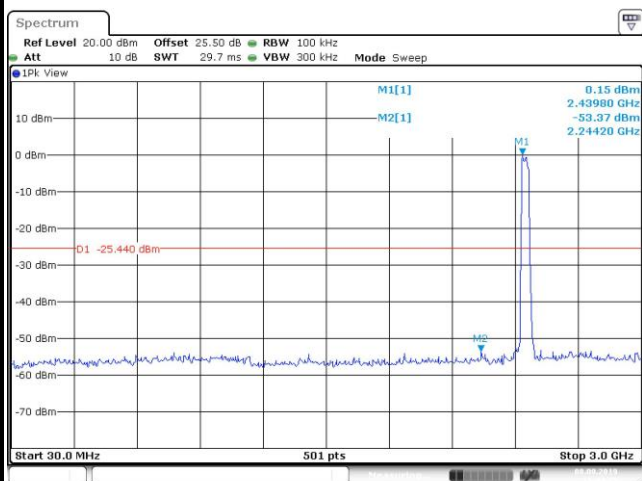
Date: 8.AUG.2019 19:23:16

Channel Plot



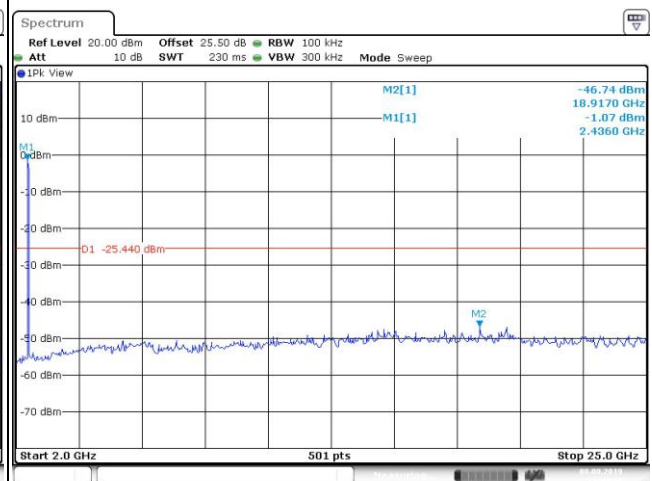
Date: 8.AUG.2019 15:44:13

Spurious Emission 30MHz~3GHz



Date: 8.AUG.2019 15:44:26

Spurious Emission 2GHz~25GHz

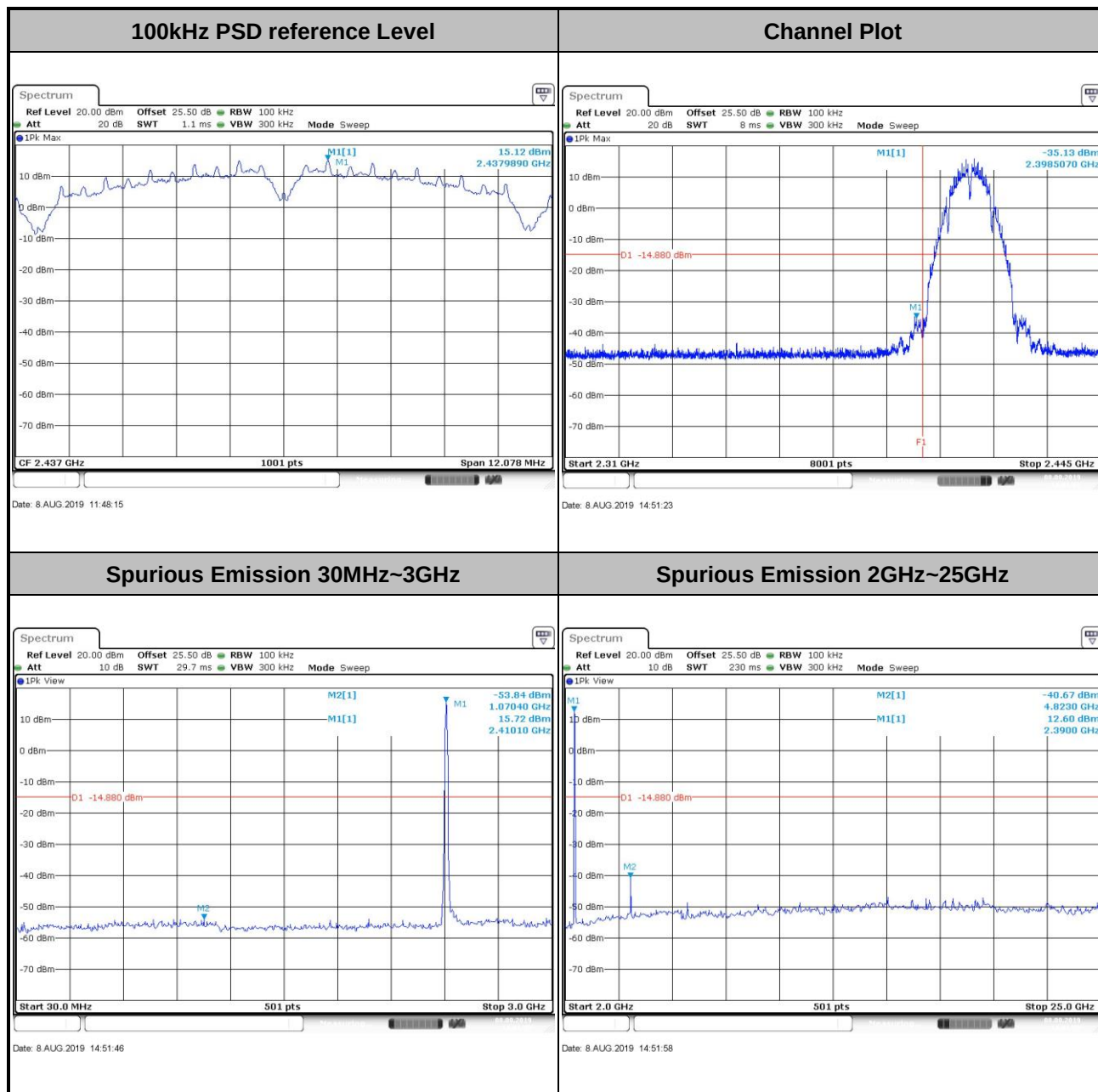


Date: 8.AUG.2019 15:44:46



Number of TX = 4, Ant. 4 (Measured)

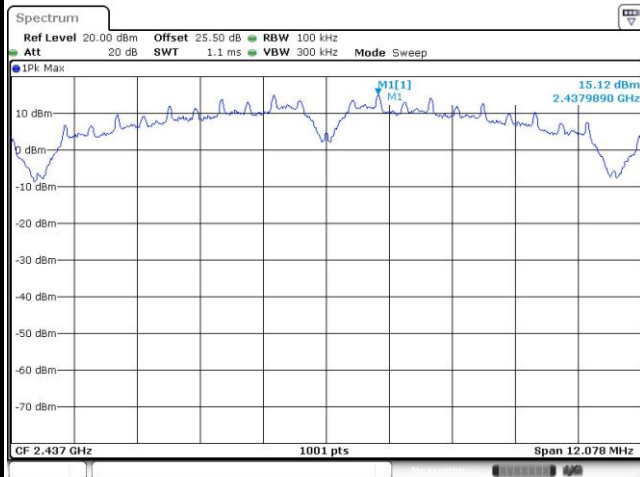
Test Mode :	802.11b	Test Channel :	01
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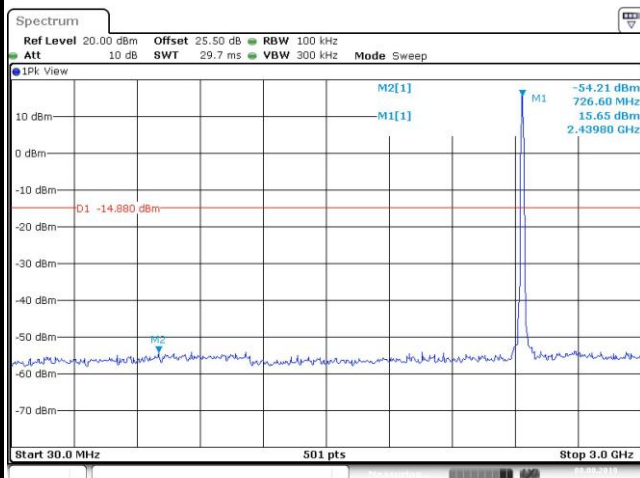
Test Mode :	802.11b	Test Channel :	06
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100kHz PSD reference Level

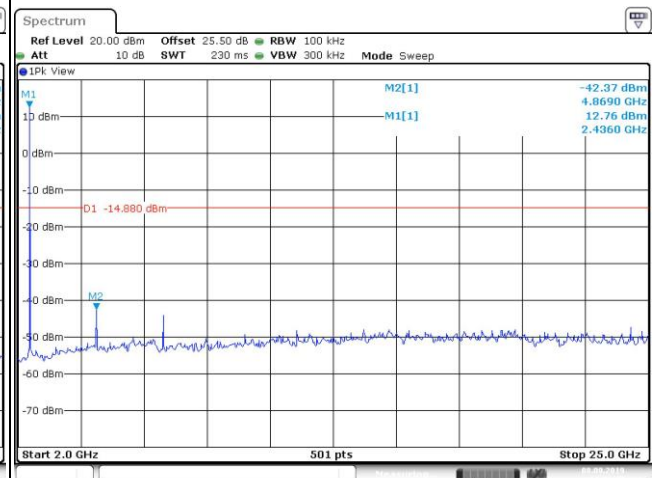


Channel Plot

Spurious Emission 30MHz~3GHz

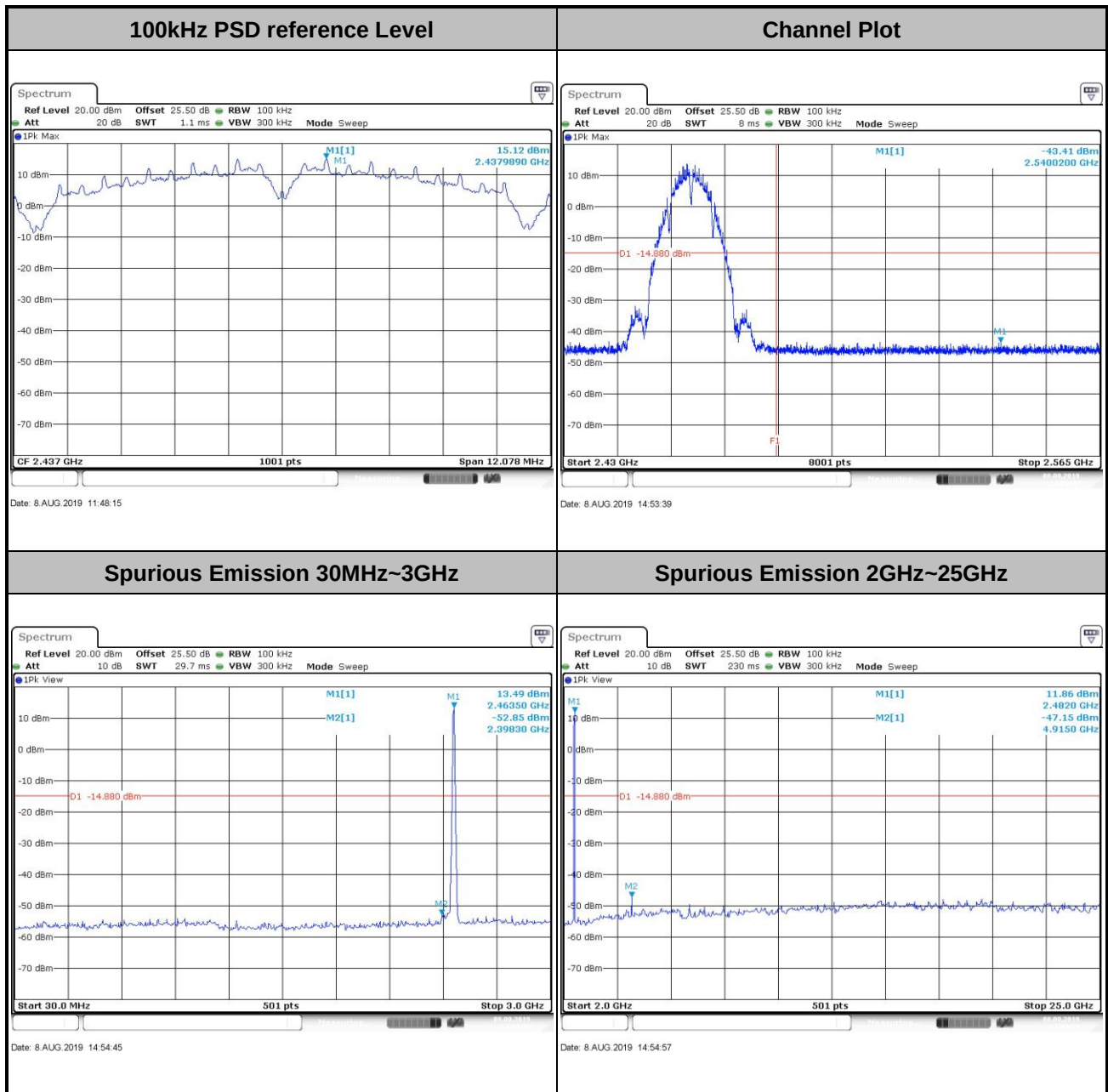


Spurious Emission 2GHz~25GHz





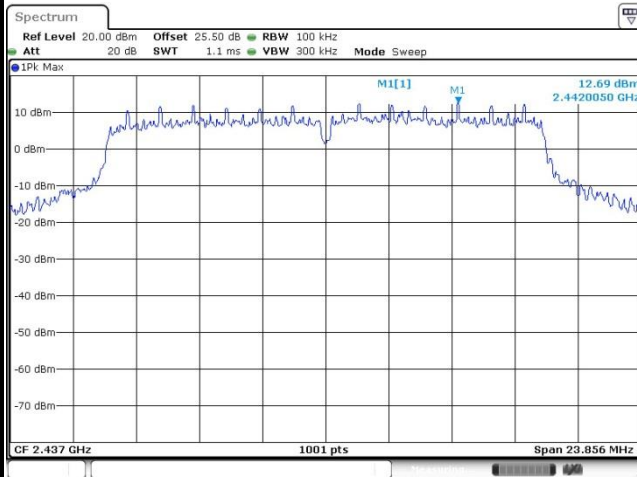
Test Mode :	802.11b	Test Channel :	11
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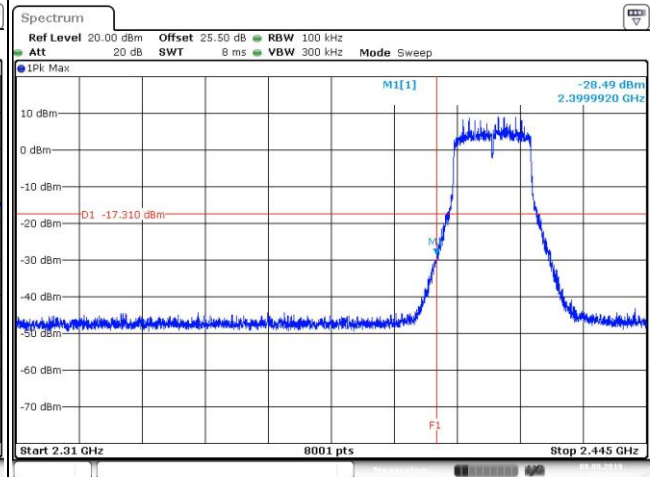


Test Mode :	802.11g	Test Channel :	01
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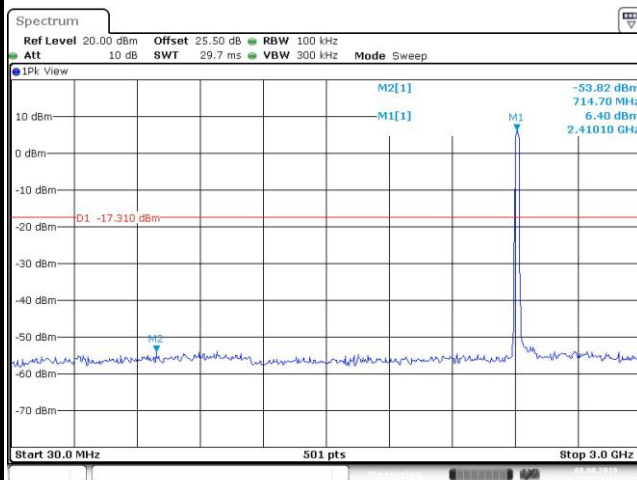
100kHz PSD reference Level



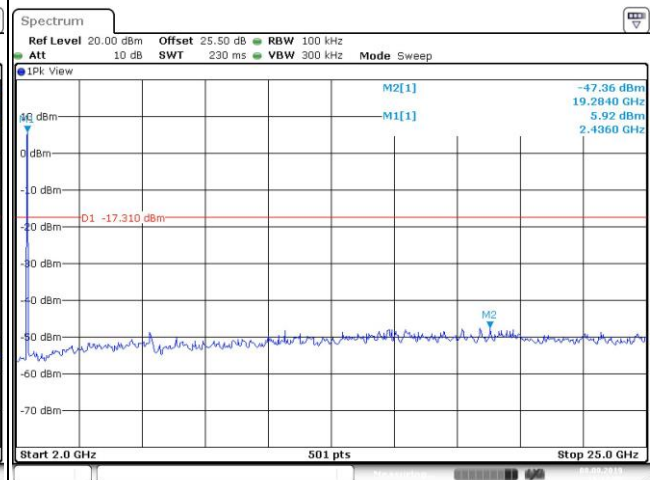
Channel Plot



Spurious Emission 30MHz~3GHz



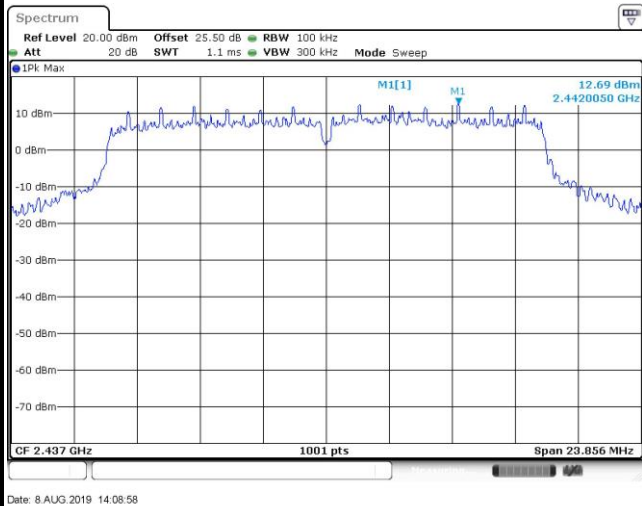
Spurious Emission 2GHz~25GHz





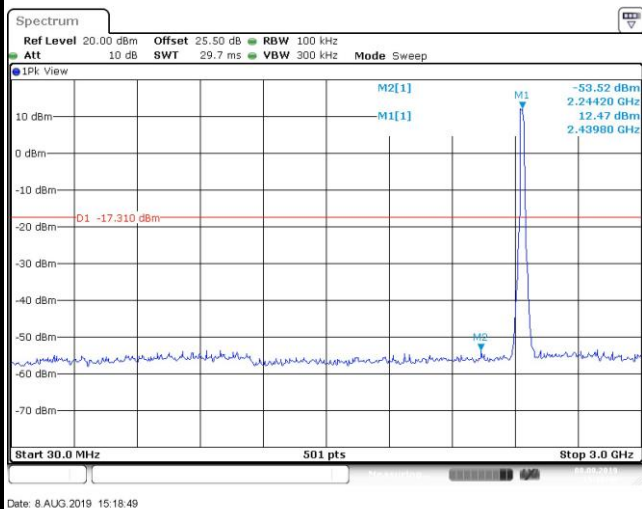
Test Mode :	802.11g	Test Channel :	06
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100kHz PSD reference Level

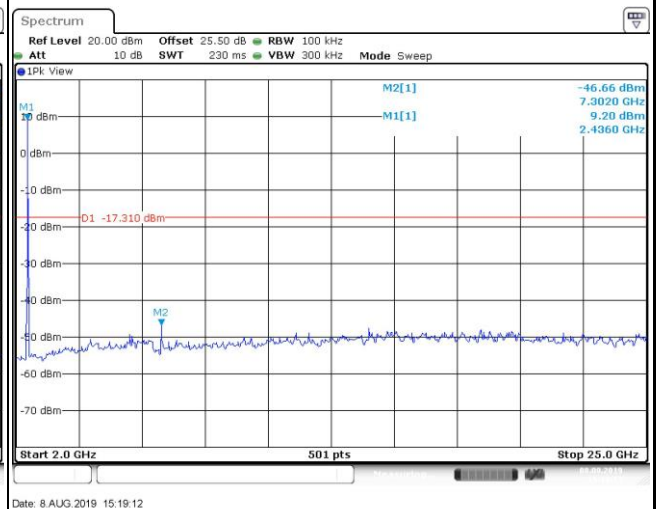


Channel Plot

Spurious Emission 30MHz~3GHz

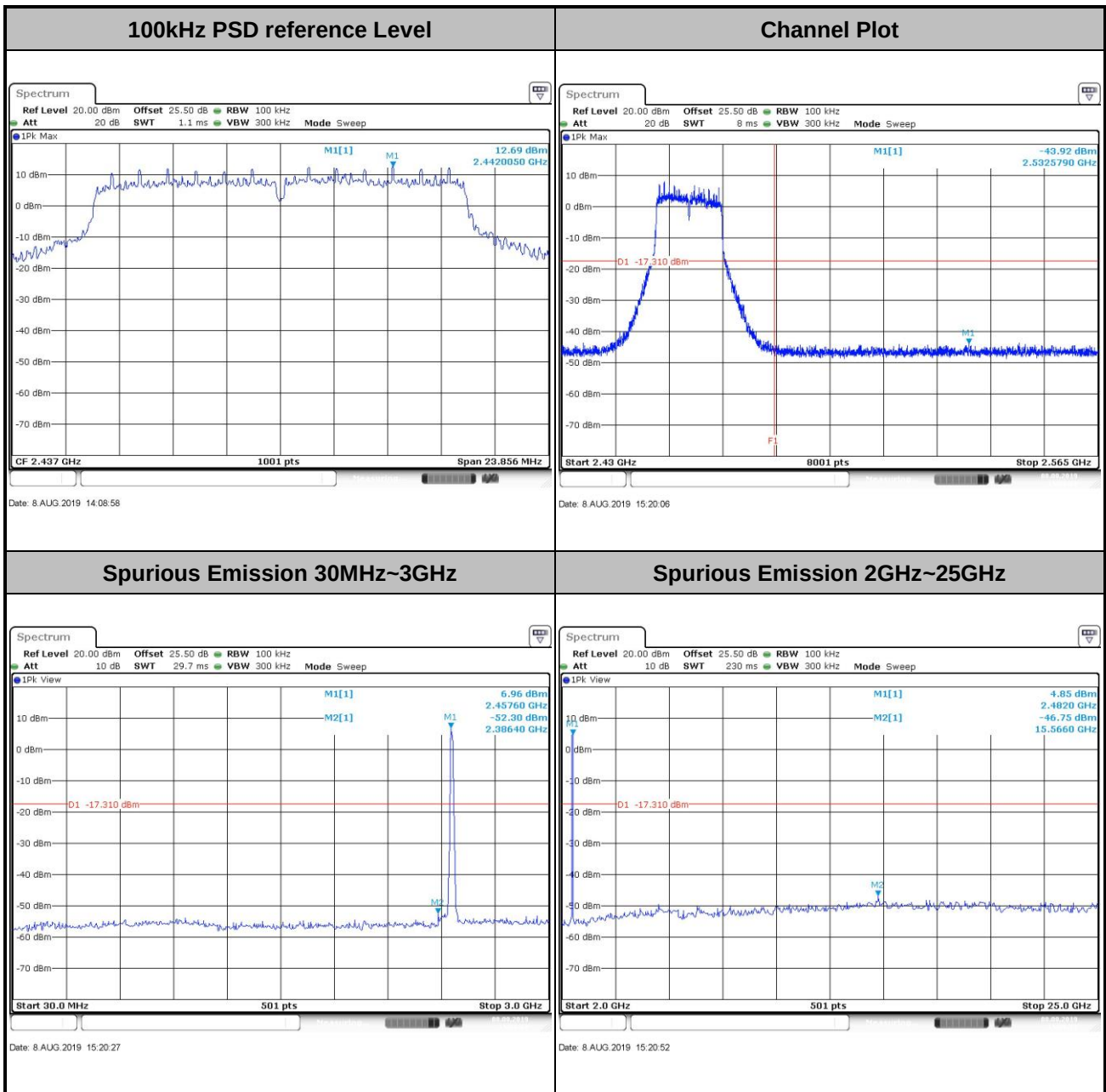


Spurious Emission 2GHz~25GHz





Test Mode :	802.11g	Test Channel :	11
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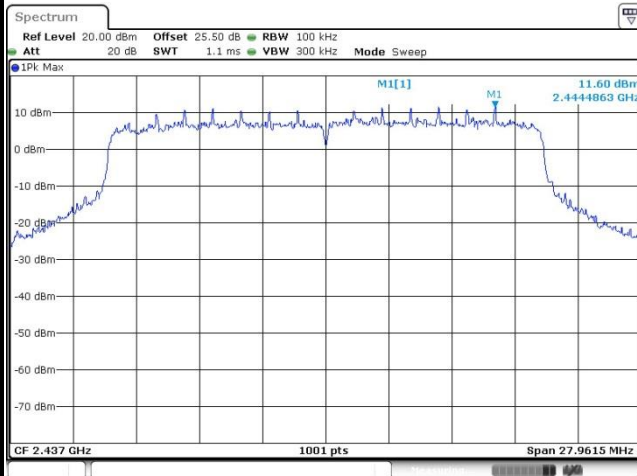




Test Mode : 802.11ax HE20

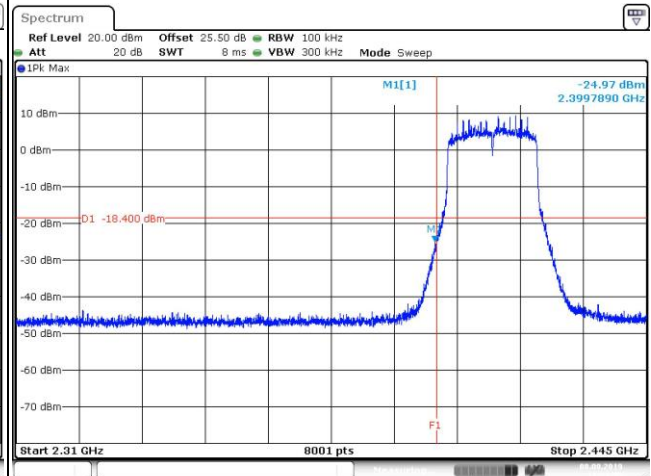
Test Channel : 01

100kHz PSD reference Level



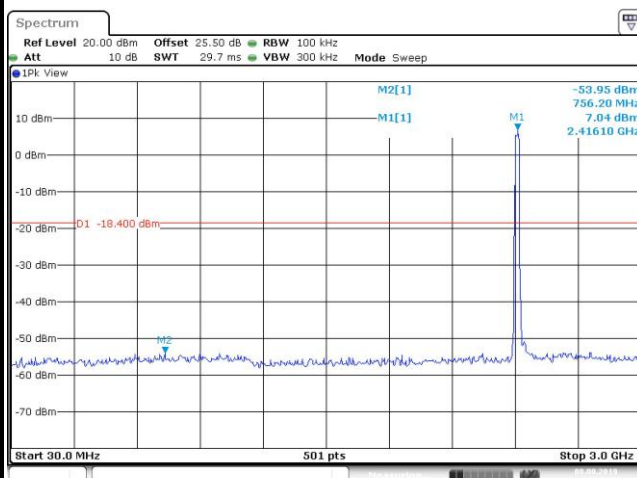
Date: 8.AUG.2019 16:11:12

Channel Plot



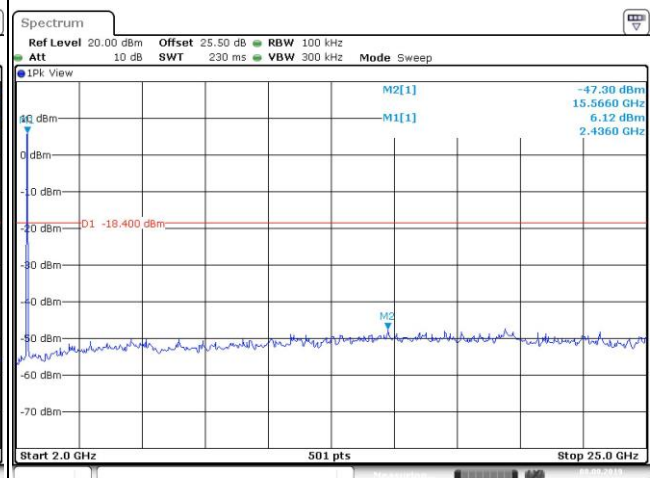
Date: 8.AUG.2019 16:23:06

Spurious Emission 30MHz~3GHz

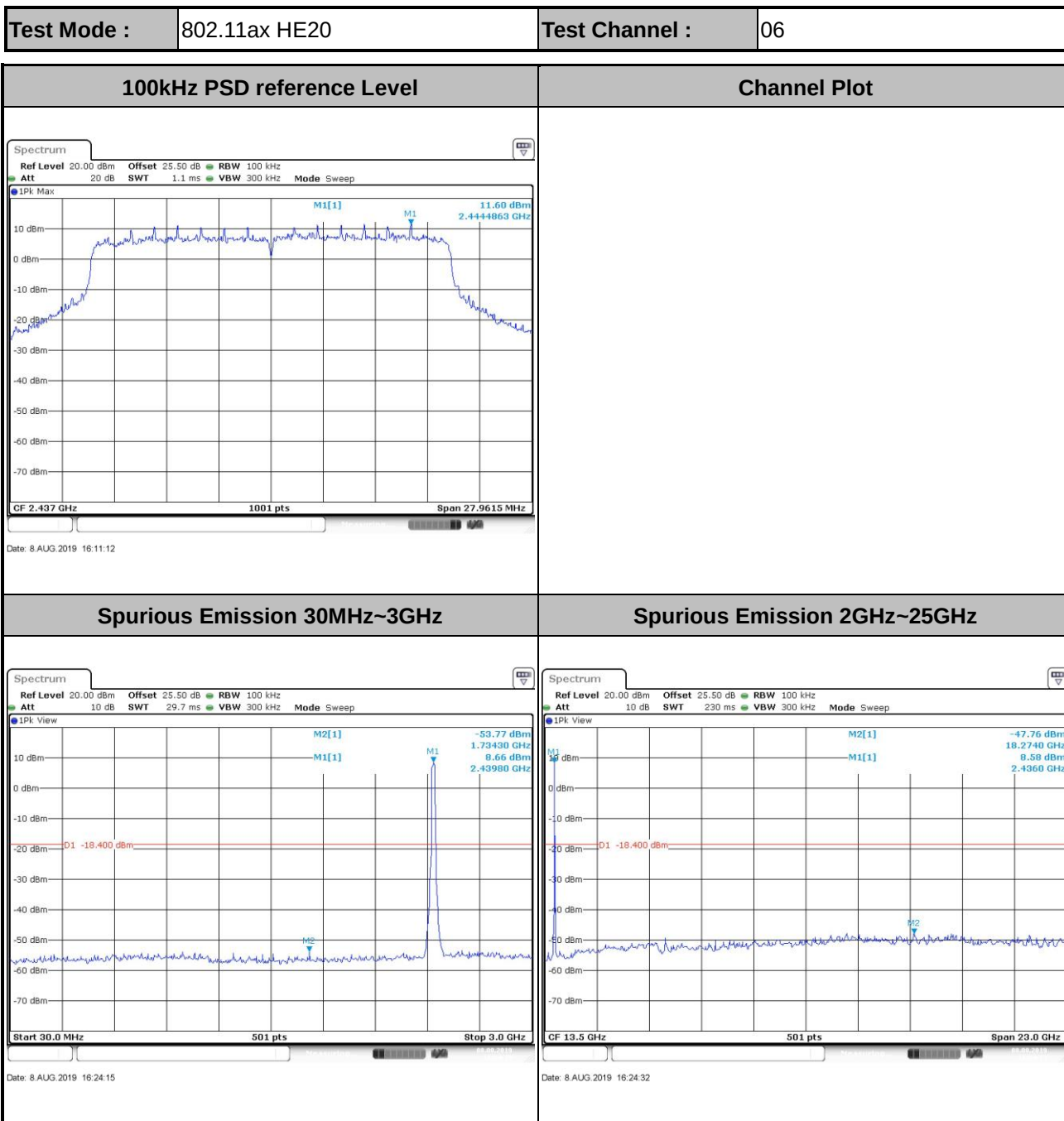


Date: 8.AUG.2019 16:23:28

Spurious Emission 2GHz~25GHz



Date: 8.AUG.2019 16:23:40

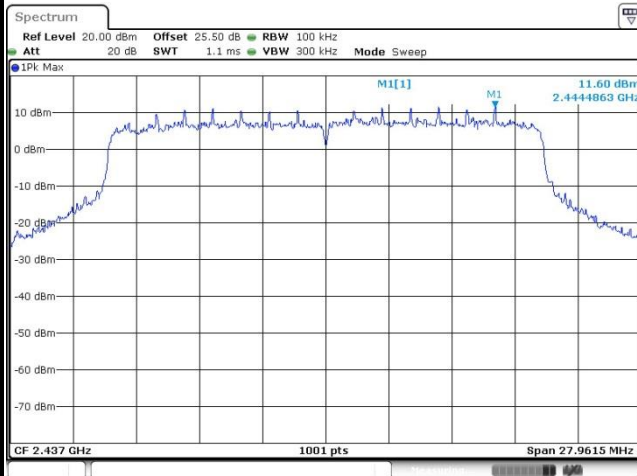




Test Mode : 802.11ax HE20

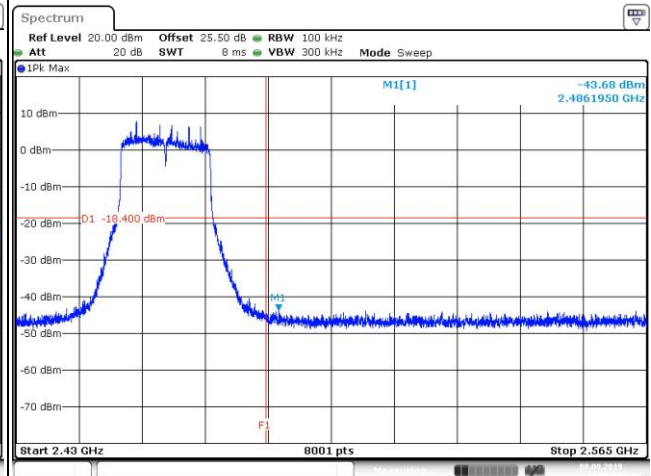
Test Channel : 11

100kHz PSD reference Level



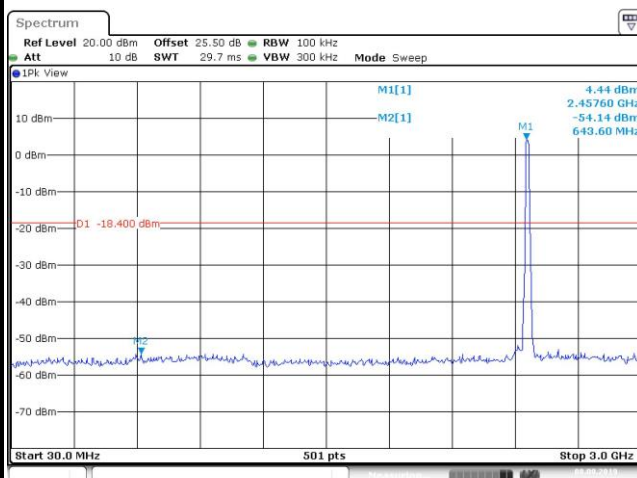
Date: 8.AUG.2019 16:11:12

Channel Plot



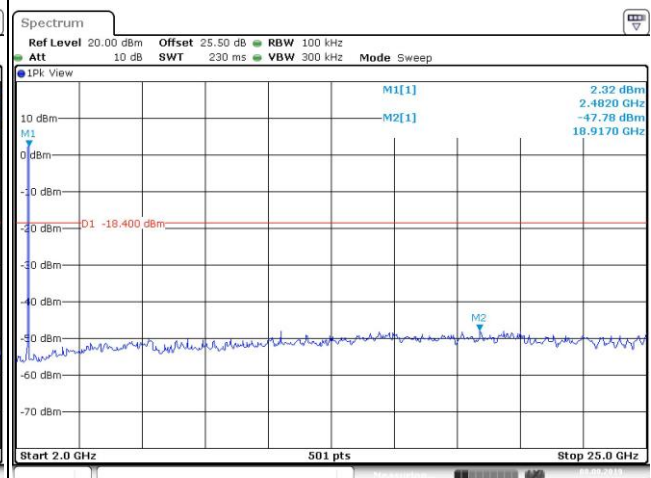
Date: 8.AUG.2019 16:25:09

Spurious Emission 30MHz~3GHz

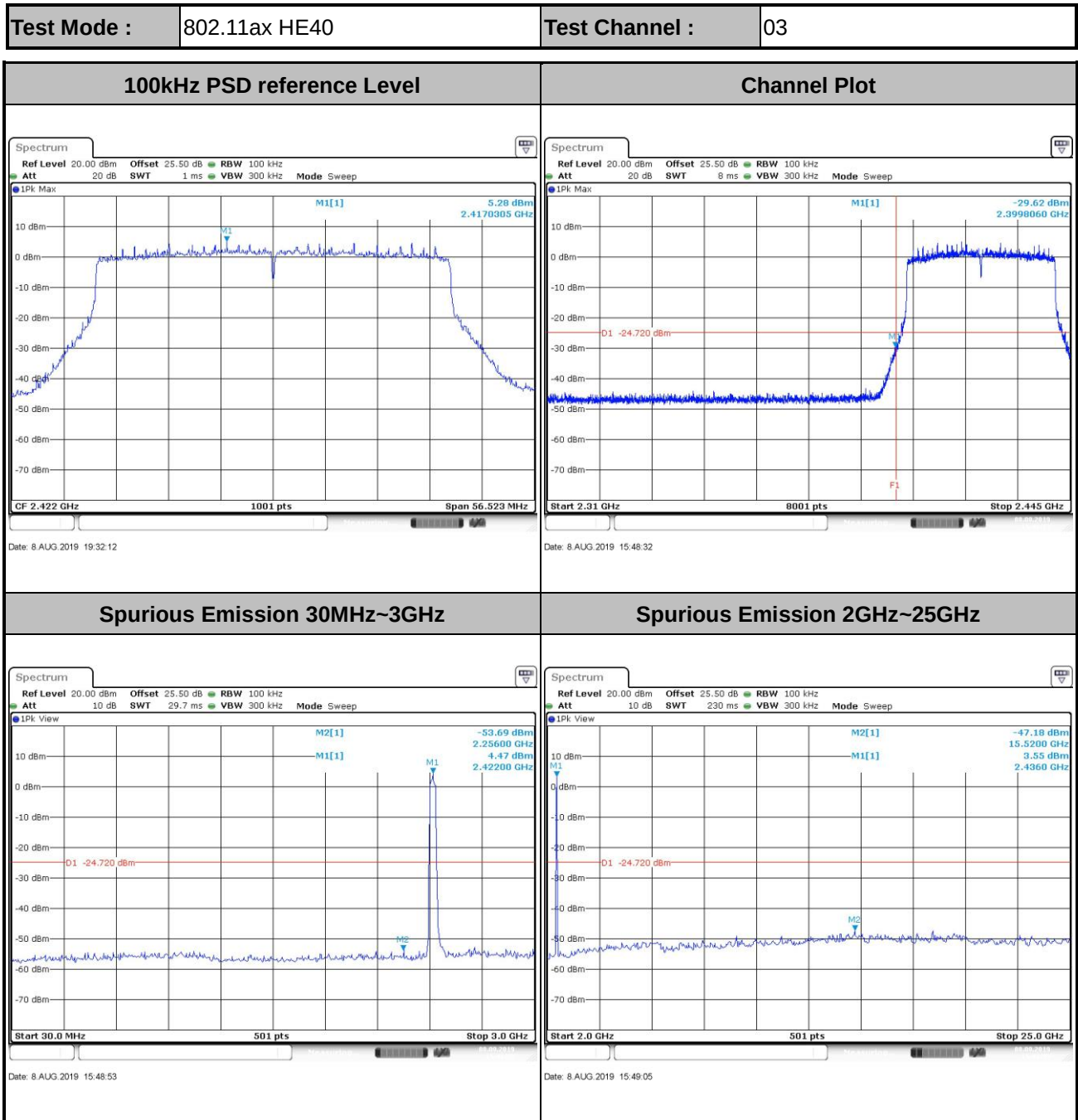


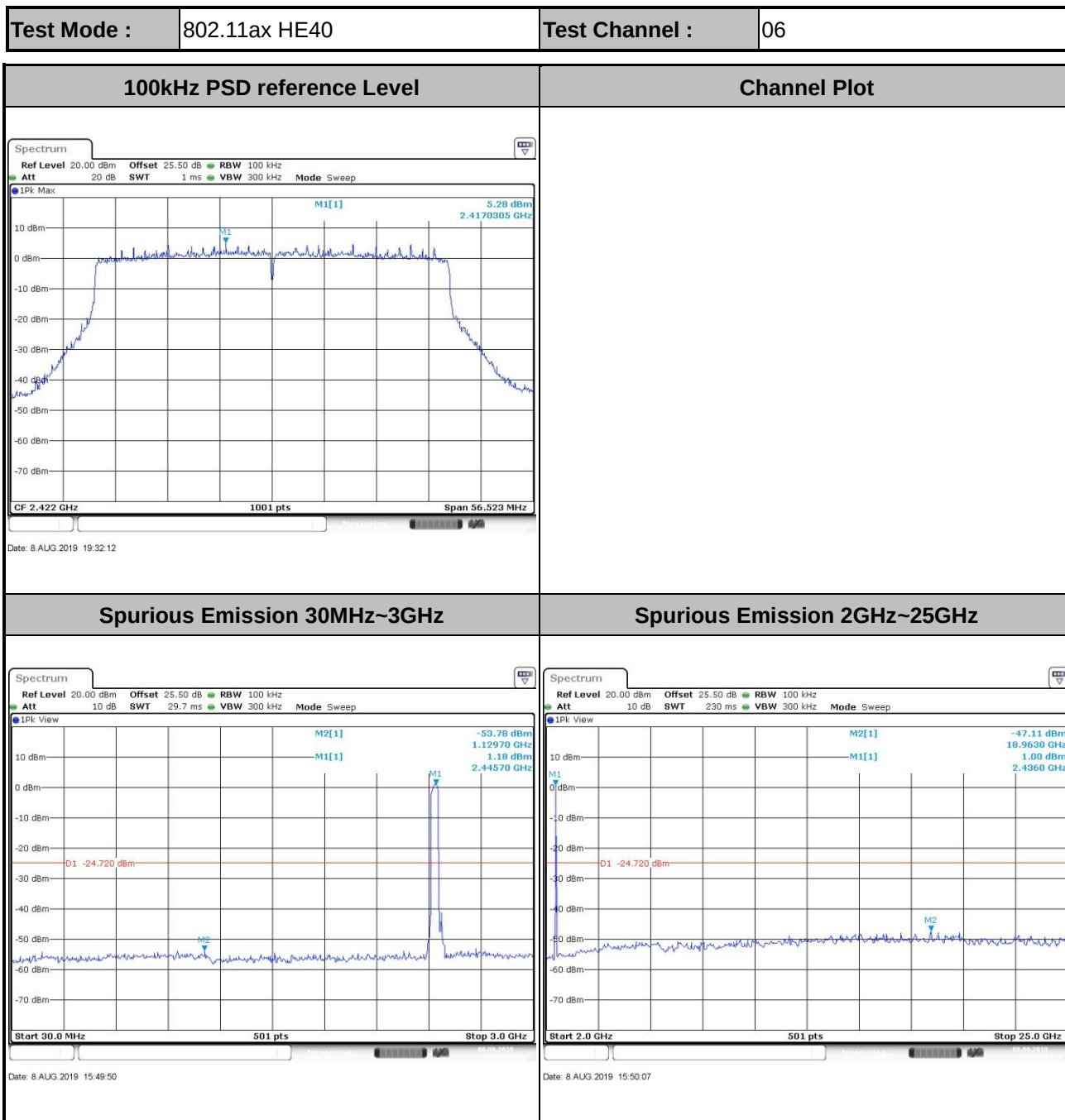
Date: 8.AUG.2019 16:26:06

Spurious Emission 2GHz~25GHz



Date: 8.AUG.2019 16:26:18



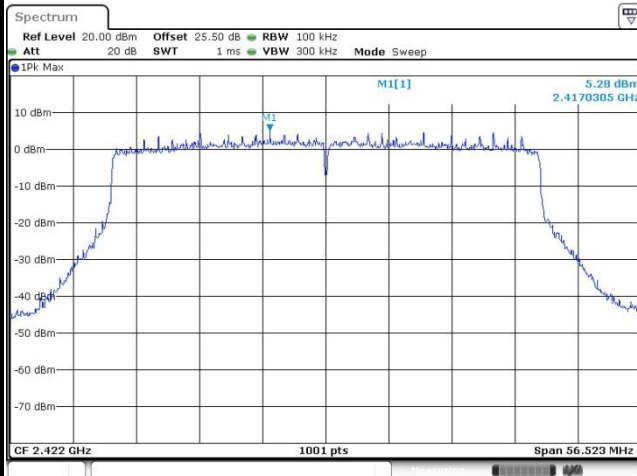




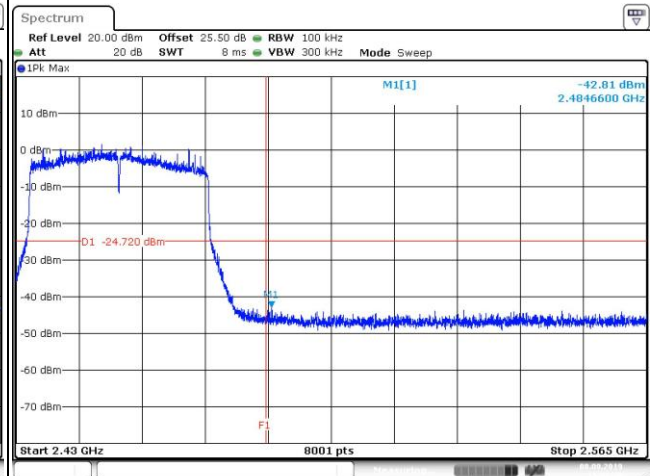
Test Mode : 802.11ax HE40

Test Channel : 09

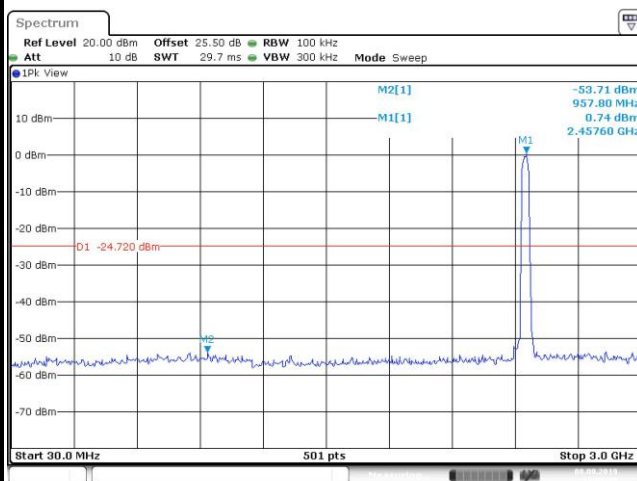
100kHz PSD reference Level



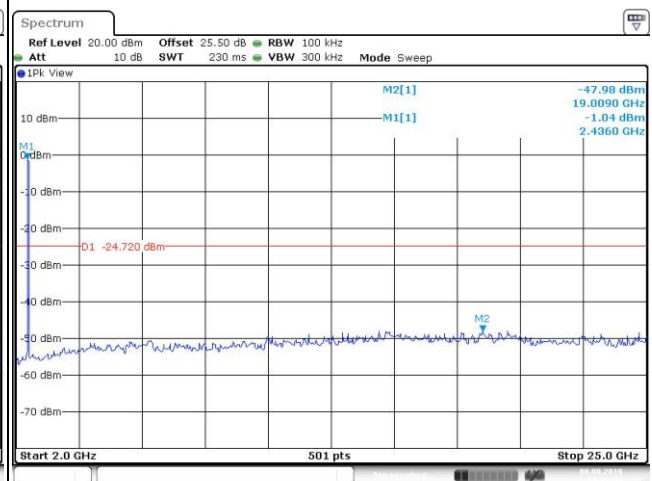
Channel Plot



Spurious Emission 30MHz~3GHz



Spurious Emission 2GHz~25GHz



3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.5.2 Measuring Instruments

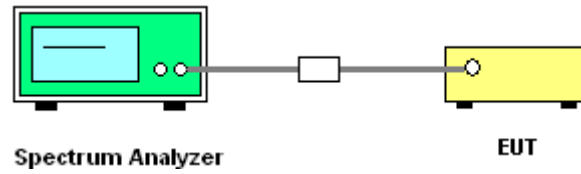
See list of measuring equipment of this test report.

3.5.3 Test Procedures

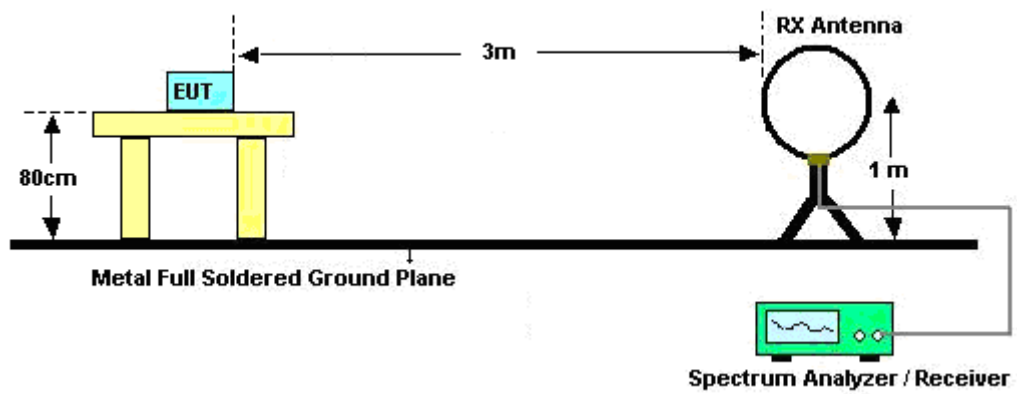
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for $f < 1$ GHz; $VBW \geq RBW$; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.
For average measurement:
 - $VBW = 10$ Hz, when duty cycle is no less than 98 percent.
 - $VBW \geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.5.4 Test Setup

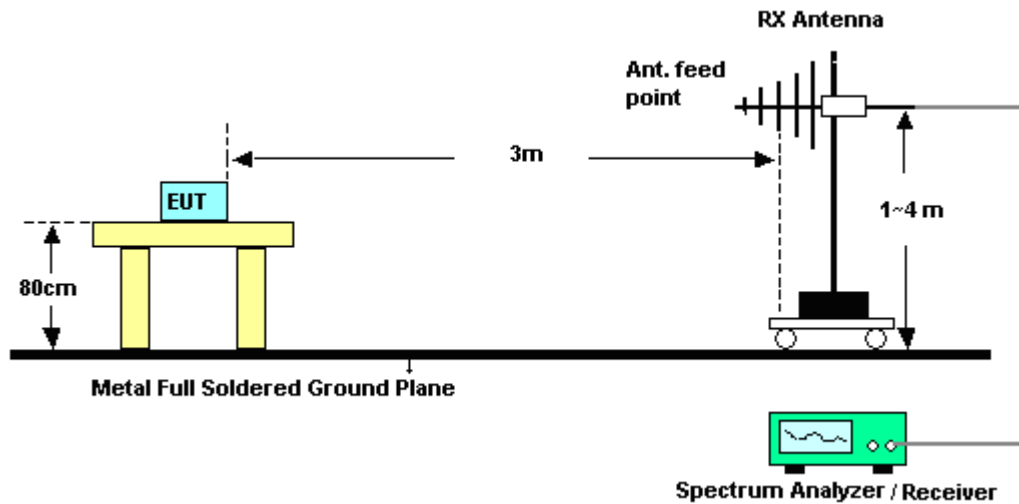
For Conducted Measurement Setup:



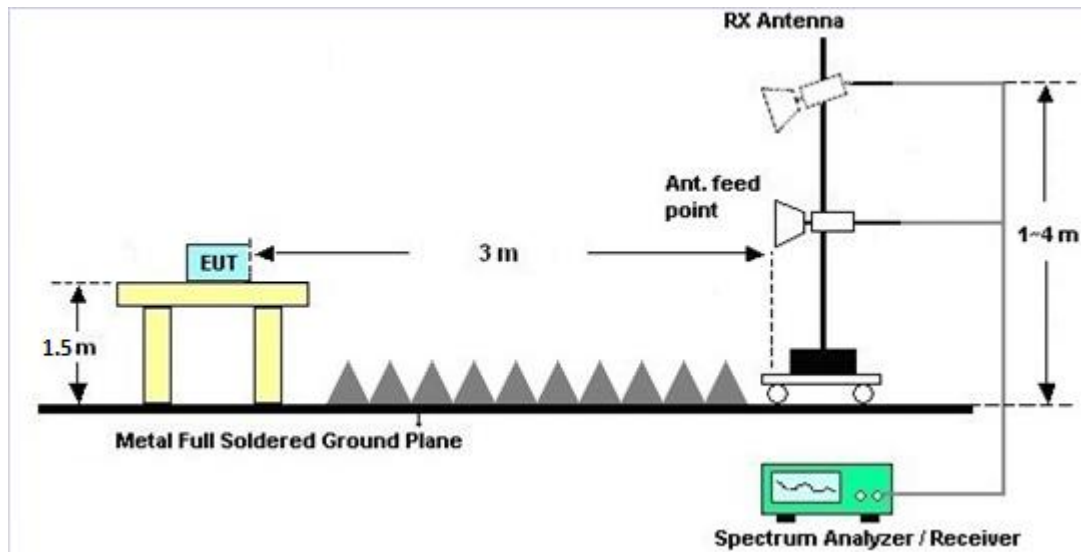
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.5.5 Test Results of Radiated Spurious Emissions (9kHz ~ 30MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.5.6 Test Result of Conduced Spurious at Band Edges in the Restricted Band

Please refer to Appendix C and D.

3.5.7 Test Result of Conduced Spurious Emission in the Restricted Band

Please refer to Appendix C and D.

3.5.8 Test Result of Cabinet Radiated Spurious at Band Edges

Please refer to Appendix E and F.

3.5.9 Test Result of Cabinet Radiated Spurious Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix E and F.

3.5.10 Duty Cycle

Please refer to Appendix G.

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

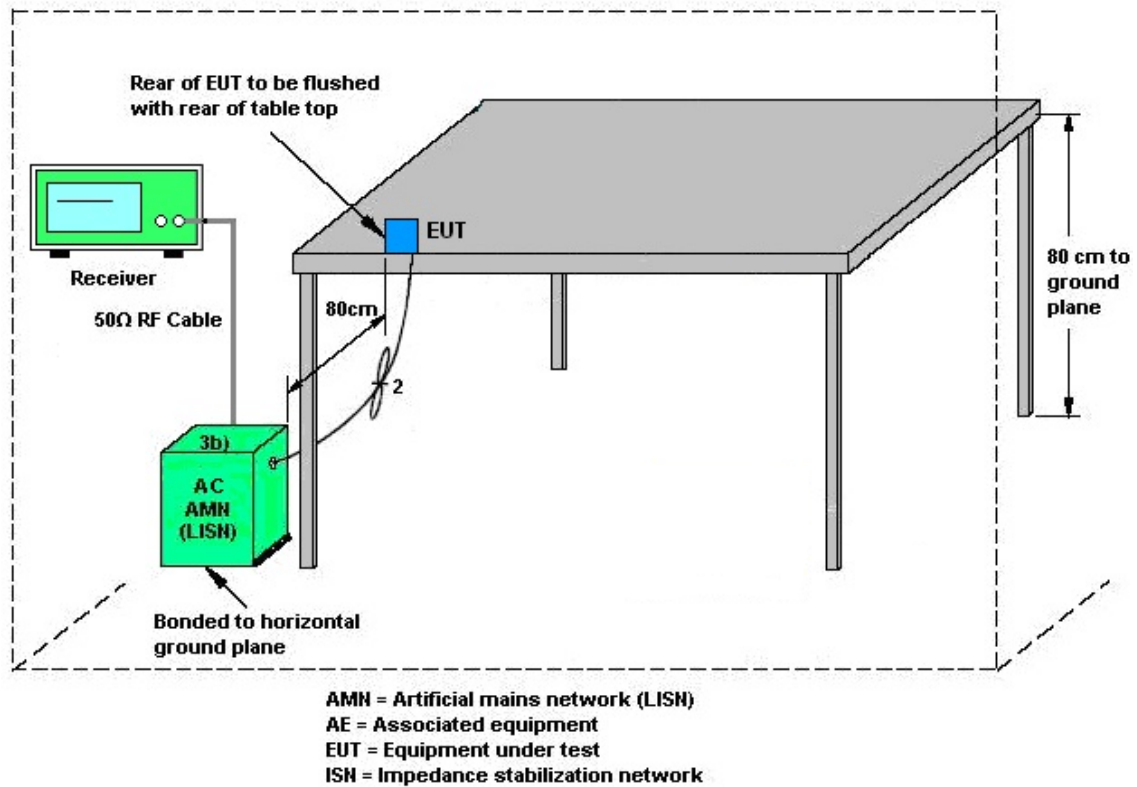
3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. The use of a permanently attached Antenna or of an Antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain = $10 \log(N_{ANT}/N_{SS}=1)$ dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e., F)2)f)i).

For PSD, the directional gain calculation is following F)2)f)ii) of KDB 662911 D01 v02r01.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain "DG" is calculated as following table.

<CDD Modes>								
	Ant. 1	Ant. 2	Ant. 3	Ant. 4	DG for Power	DG for PSD	Power Limit Reduction	PSD Limit Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
2.4 GHz	1.60	-1.70	1.60	-1.70	1.60	4.61	0.00	0.00

Power Limit Reduction = $DG(\text{Power}) - 6\text{dBi}$, (min = 0)

PSD Limit Reduction = $DG(\text{PSD}) - 6\text{dBi}$, (min = 0)



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1804004	N/A	Aug. 09, 2018	Jul. 30, 2019~ Aug. 08, 2019	Aug. 08, 2019	Conducted (TH01-CA)
Power Sensor	Anritsu	MA2411B	1726149	300MHz~40GHz z	Aug. 09, 2018	Jul. 30, 2019~ Aug. 08, 2019	Aug. 08, 2019	Conducted (TH01-CA)
Spectrum Analyzer	Rohde & Schwarz	FSV 40	101089	10Hz~40GHz	Aug. 23, 2018	Jul. 30, 2019~ Aug. 08, 2019	Aug. 22, 2019	Conducted (TH01-CA)
Switch Box & RF Cable	EM	EMSW18	SW1070902	N/A	Apr. 07, 2019	Jul. 30, 2019~ Aug. 08, 2019	Apr. 06, 2020	Conducted (TH01-CA)
LISN	TESEQ	NNB51	47407	N/A	Jun. 26, 2019	Aug. 17, 2019	Jun. 25, 2020	Conduction (CO01-CA)
EMI Test Receiver	R&S	ESR7	102177	9KHz~7GHz	Jun. 27, 2019	Aug. 17, 2019	Jun. 26, 2020	Conduction (CO01-CA)
Pulse limiter with 10dB attenuation	R&S	VTSD 9561-F N	9561-F- N00412	N/A	Jun. 11, 2019	Aug. 17, 2019	Jun. 10, 2019	Conduction (CO01-CA)
Test Software	Audix E3	6.2009-8-24	RK-002094	N/A	N/A	Aug. 17, 2019	N/A	Conduction (CO01-CA)
Bilog Antenna	TESEQ	6111D	50392	30MHz~1GHz	May 15, 2019	Aug. 17, 2019~ Aug. 26, 2019	May 14, 2020	Radiation (03CH02-CA)
Horn Antenna	SCHWARZBECK	BBHA 9120D	01894	1GHz~18GHz	Jul. 22, 2019	Aug. 17, 2019~ Aug. 26, 2019	Jul. 21, 2020	Radiation (03CH02-CA)
Amplifier	SONOMA	310N	372241	N/A	Jul. 26, 2019	Aug. 17, 2019~ Aug. 26, 2019	Jul. 25, 2020	Radiation (03CH02-CA)
Preamplifier	Keysight	83017A	MY53270323	1GHz~26.5GHz	Sep. 11, 2018	Aug. 17, 2019~ Aug. 26, 2019	Sep. 10, 2019	Radiation (03CH02-CA)
Preamplifier	Jet-Power	JPA0118-55 -303	1710001800 055007	1GHz~18GHz	Apr. 01, 2019	Aug. 17, 2019~ Aug. 26, 2019	Mar. 31, 2020	Radiation (03CH02-CA)
EMI Test Receiver	R&S	ESU26	100123	20Hz~26.5GHz	Aug. 28, 2018	Aug. 17, 2019~ Aug. 26, 2019	Aug. 27, 2019	Radiation (03CH02-CA)
Filter	Wainwright	WLK12-120 0-1272-1100 0-40SS	SN2	1.2G Low Pass	Aug. 02, 2019	Aug. 17, 2019~ Aug. 26, 2019	Aug. 01, 2020	Radiation (03CH02-CA)
Filter	Wainwright	WHKX12-27 00-3000-18 000-60ST	SN10	3G Highpass	Aug. 02, 2019	Aug. 17, 2019~ Aug. 26, 2019	Aug. 01, 2020	Radiation (03CH02-CA)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Aug. 17, 2019~ Aug. 26, 2019	N/A	Radiation (03CH02-CA)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Aug. 17, 2019~ Aug. 26, 2019	N/A	Radiation (03CH02-CA)
Spectrum Analyzer	Rohde & Schwarz	FSV 40	101089	10Hz~40GHz	Aug. 23, 2018	Aug. 03, 2019~ Aug. 06, 2019	Aug. 22, 2019	Conducted (TH01-CA)
EMI Test Receiver	Rohde & Schwarz	ESU26	100123	20Hz~26.5GHz	Sep. 04, 2019	Oct. 30, 2019~ Nov. 08, 2019	Sep. 03, 2020	Conducted (TH01-CA)

5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	1.7
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.4
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.5
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	6.3
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Appendix A. Conducted Test Results

Test Engineer:	Jordan Huang	Temperature:	21~25	°C
Test Date:	07/30/2019~08/08/2019	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band														
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)				6dB BW (MHz)				6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 3	Ant 4	Ant 1	Ant 2	Ant 3	Ant 4		
11b	1Mbps	4	1	2412	13.79	13.19	13.09	13.09	8.05	8.05	8.03	8.03	0.50	Pass
11b	1Mbps	4	6	2437	15.68	13.34	13.19	13.19	9.05	8.05	8.05	8.05	0.50	Pass
11b	1Mbps	4	11	2462	13.54	13.54	13.39	13.44	8.03	8.05	7.55	8.05	0.50	Pass
11g	6Mbps	4	1	2412	16.53	16.48	16.43	16.43	16.28	16.28	16.00	15.92	0.50	Pass
11g	6Mbps	4	6	2437	18.83	16.88	16.63	16.73	16.28	16.28	16.28	15.90	0.50	Pass
11g	6Mbps	4	11	2462	16.53	16.53	16.48	16.53	15.72	15.72	15.70	15.70	0.50	Pass
HE20	MCS0	4	1	2412	18.88	18.93	18.93	18.93	18.43	18.49	17.98	18.58	0.50	Pass
HE20	MCS0	4	6	2437	19.43	19.03	18.98	19.03	18.64	18.52	18.50	18.64	0.50	Pass
HE20	MCS0	4	11	2462	18.88	19.03	19.03	18.98	16.78	18.64	17.95	18.07	0.50	Pass
HE40	MCS0	4	3	2422	37.96	37.86	38.06	37.86	37.56	37.64	38.00	37.68	0.50	Pass
HE40	MCS0	4	6	2437	37.96	37.76	37.96	37.96	37.88	37.40	37.92	37.56	0.50	Pass
HE40	MCS0	4	9	2452	37.66	37.76	37.86	37.66	36.32	36.32	37.44	36.32	0.50	Pass

TEST RESULTS DATA
Average Output Power

2.4GHz Band												
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Average Conducted Power using gated RF power meter (dBm)					Directional Gain (dBi)	Conducted Power Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 3	Ant 4	SUM			
11b	1Mbps	4	1	2412	23.96	23.74	22.74	23.37	29.50	1.60	30.00	Pass
11b	1Mbps	4	6	2437	24.30	23.92	22.69	23.48	29.66	1.60	30.00	Pass
11b	1Mbps	4	11	2462	22.62	21.98	20.79	21.44	27.78	1.60	30.00	Pass
11g	6Mbps	4	1	2412	20.30	20.11	18.97	19.46	25.76	1.60	30.00	Pass
11g	6Mbps	4	6	2437	22.80	23.45	22.49	23.17	29.01	1.60	30.00	Pass
11g	6Mbps	4	11	2462	18.85	18.31	17.33	17.74	24.12	1.60	30.00	Pass
HT20	MCS0	4	1	2412	20.46	19.91	18.91	19.19	25.68	1.60	30.00	Pass
HT20	MCS0	4	6	2437	22.87	22.68	21.40	21.96	28.29	1.60	30.00	Pass
HT20	MCS0	4	11	2462	18.92	18.20	17.22	17.66	24.07	1.60	30.00	Pass
HT40	MCS0	4	3	2422	19.75	19.40	18.67	18.90	25.22	1.60	30.00	Pass
HT40	MCS0	4	6	2437	19.03	18.40	17.47	17.85	24.25	1.60	30.00	Pass
HT40	MCS0	4	9	2452	16.82	16.39	15.45	15.85	22.18	1.60	30.00	Pass
HE20	MCS0	4	1	2412	20.25	20.11	18.90	19.45	25.73	1.60	30.00	Pass
HE20	MCS0	4	6	2437	22.82	22.73	21.54	22.13	28.36	1.60	30.00	Pass
HE20	MCS0	4	11	2462	18.82	18.33	17.32	17.76	24.11	1.60	30.00	Pass
HE40	MCS0	4	3	2422	19.81	19.41	18.70	18.87	25.24	1.60	30.00	Pass
HE40	MCS0	4	6	2437	18.94	18.48	17.51	17.87	24.26	1.60	30.00	Pass
HE40	MCS0	4	9	2452	16.78	16.40	15.56	15.83	22.19	1.60	30.00	Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Power Spectral Density

2.4GHz Band																
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Duty Factor (dB)				Average PSD (dBm/3kHz)					DG (dBi)	Average PSD Limit (dBm/3kHz)	Pass/Fail
					Ant1	Ant2	Ant3	Ant4	Ant 1	Ant 2	Ant 3	Ant 4	Worse + 3.01			
11b	1Mbps	4	1	2412	0.07	0.07	0.07	0.07	-2.56	-2.64	-2.55	-1.92	1.09	4.61	8.00	Pass
11b	1Mbps	4	6	2437	0.07	0.07	0.07	0.07	-3.59	-2.43	-3.66	-2.59	0.58	4.61	8.00	Pass
11b	1Mbps	4	11	2462	0.07	0.07	0.07	0.07	-2.42	-4.23	-4.88	-3.84	0.59	4.61	8.00	Pass
11g	6Mbps	4	1	2412	0.28	0.28	0.28	0.29	-11.75	-12.07	-12.73	-12.45	-8.74	4.61	8.00	Pass
11g	6Mbps	4	6	2437	0.28	0.28	0.28	0.29	-9.01	-8.94	-8.97	-9.16	-5.93	4.61	8.00	Pass
11g	6Mbps	4	11	2462	0.28	0.28	0.28	0.29	-12.96	-13.37	-14.40	-14.21	-9.95	4.61	8.00	Pass
HE20	MCS0	4	1	2412	0.24	0.23	0.23	0.21	-14.72	-15.44	-16.39	-15.00	-11.71	4.61	8.00	Pass
HE20	MCS0	4	6	2437	0.24	0.23	0.23	0.21	-12.66	-12.49	-14.06	-13.11	-9.48	4.61	8.00	Pass
HE20	MCS0	4	11	2462	0.24	0.23	0.23	0.21	-15.77	-16.84	-17.52	-17.60	-12.76	4.61	8.00	Pass
HE40	MCS0	4	3	2422	0.22	0.22	0.24	0.23	-18.59	-18.94	-19.35	-19.33	-15.58	4.61	8.00	Pass
HE40	MCS0	4	6	2437	0.22	0.22	0.24	0.23	-19.46	-18.84	-21.09	-20.43	-15.83	4.61	8.00	Pass
HE40	MCS0	4	9	2452	0.22	0.22	0.24	0.23	-20.81	-21.50	-21.75	-21.94	-17.80	4.61	8.00	Pass

Measured power density (dBm) has offset with cable loss.

<Band-edge Unmodulated>

TEST RESULTS DATA
Average Output Power

2.4GHz Band												
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Average Conducted Power using gated RF power meter (dBm)					Directional Gain (dBi)	Conducted Power Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 3	Ant 4	SUM			
HE20	MCS0	4	1	2412	16.58	16.34	15.62	15.83	22.13	1.60	30.00	Pass
HE20	MCS0	4	6	2437	19.16	18.97	18.15	18.47	24.73	1.60	30.00	Pass
HE20	MCS0	4	11	2462	14.56	14.13	13.20	13.43	19.89	1.60	30.00	Pass
HE40	MCS0	4	3	2422	16.17	15.72	15.10	15.13	21.57	1.60	30.00	Pass
HE40	MCS0	4	6	2437	15.56	15.07	14.13	14.47	20.86	1.60	30.00	Pass
HE40	MCS0	4	9	2452	13.88	13.46	12.49	12.92	19.24	1.60	30.00	Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Power Spectral Density

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)				Average PSD (dBm/3kHz)					DG (dBi)	Average PSD Limit (dBm/3kHz)	Pass/Fail
					Ant1	Ant2	Ant3	Ant4	Ant 1	Ant 2	Ant 3	Ant 4	Worse + 3.01			
HE20	MCS0	4	1	2412	0.17	0.2	0.19	0.2	-15.44	-15.62	-16.56	-16.49	-12.43	4.61	8.00	Pass
HE20	MCS0	4	6	2437	0.17	0.2	0.19	0.2	-13.25	-13.36	-14.30	-13.49	-10.24	4.61	8.00	Pass
HE20	MCS0	4	11	2462	0.17	0.2	0.19	0.2	-17.06	-17.01	-18.71	-18.28	-14.00	4.61	8.00	Pass
HE40	MCS0	4	3	2422	0.27	0.28	0.27	0.26	-19.32	-19.64	-20.18	-20.55	-16.31	4.61	8.00	Pass
HE40	MCS0	4	6	2437	0.27	0.28	0.27	0.26	-19.51	-20.03	-21.34	-20.62	-16.50	4.61	8.00	Pass
HE40	MCS0	4	9	2452	0.27	0.28	0.27	0.26	-21.96	-21.67	-23.06	-22.36	-18.66	4.61	8.00	Pass

Measured power density (dBm) has offset with cable loss.

<Middle Unmodulated>

TEST RESULTS DATA
Average Output Power

2.4GHz Band												
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Average Conducted Power using gated RF power meter (dBm)					Directional Gain (dBi)	Conducted Power Limit (dBm)	Pass /Fail
					Ant 1	Ant 2	Ant 3	Ant 4	SUM			
HE20	MCS0	4	1	2412	12.32	12.50	11.18	11.57	17.95	1.60	30.00	Pass
HE20	MCS0	4	6	2437	20.27	20.30	19.03	19.76	25.89	1.60	30.00	Pass
HE20	MCS0	4	11	2462	10.44	10.50	9.28	9.50	15.99	1.60	30.00	Pass
HE40	MCS0	4	3	2422	15.94	15.55	14.66	14.81	21.29	1.60	30.00	Pass
HE40	MCS0	4	6	2437	15.21	14.25	13.18	13.64	20.16	1.60	30.00	Pass
HE40	MCS0	4	9	2452	12.92	12.62	11.37	11.82	18.25	1.60	30.00	Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Power Spectral Density

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)				Average PSD (dBm/3kHz)					DG (dBi)	Average PSD Limit (dBm/3kHz)	Pass/Fail
					Ant1	Ant2	Ant3	Ant4	Ant 1	Ant 2	Ant 3	Ant 4	Worse + 3.01			
HE20	MCS0	4	1	2412	0.45	0.42	0.46	0.48	-20.08	-20.73	-21.84	-21.18	-17.07	4.61	8.00	Pass
HE20	MCS0	4	6	2437	0.45	0.42	0.46	0.48	-12.83	-13.15	-14.24	-13.30	-9.82	4.61	8.00	Pass
HE20	MCS0	4	11	2462	0.45	0.42	0.46	0.48	-21.85	-21.81	-23.16	-22.69	-18.80	4.61	8.00	Pass
HE40	MCS0	4	3	2422	0.28	0.28	0.28	0.28	-19.14	-19.71	-20.64	-20.56	-16.13	4.61	8.00	Pass
HE40	MCS0	4	6	2437	0.28	0.28	0.28	0.28	-19.73	-20.86	-21.85	-21.34	-16.72	4.61	8.00	Pass
HE40	MCS0	4	9	2452	0.28	0.28	0.28	0.28	-21.62	-21.96	-23.09	-22.71	-18.61	4.61	8.00	Pass

Measured power density (dBm) has offset with cable loss.